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JAINA GEOGRAPHY

Aryikā Jñanmatī

Digambara Jaina Institute of Cosmographic
Research, Hastinapur (Meerut)

Series No. 76

JAINA GEOGRAPHY

By

PŪJYA ĀRYIKĀRATNA ŚRĪ JÑĀNMATĪ MĀTĀJĪ

Translated into English

by

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VĪRA JÑĀNODAYA GRANTHAMĀLĀ

This Granthamālā is an ambitious project of D.J.I.C.R. in which we are publishing the original and translated work of Digambara Jaina Sect written in Hindi, English, Saṁskṛta, Prākṛta, Apabhraṁśa, Kannaḍa etc. We are also publishing short story type books, booklets etc. in the interest of beginners and children.

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BLESSINGS

(Holy Mother Pūjya Āryikāratna
Śrī Jñānmatī Mātāji)

I am very glad to note that Dr. Lishk is translating my book जैन भूगोल which is itself a collection of my few articles on Jaina Cosmography.

Dr. Lishk is working a lot on Jaina Astronomy. His interest towards ancient Jaina texts of Karṇānuyoga section and devotion is worthwhile and I am quite sure that if he will go more deeply in the Tiḷḷoyapaṇṇati, Trilokosāra, Jambuddivapaṇṇattisaṅgho, Lokavibhāga etc., he will find more interesting and scientific results.

My good wishes and blessings are with him for happy, religious and devoted life for the same.

BRIEF LIFE-SKETCH OF PŪJYA ĀRYIKĀRATNA ŚRĪ JÑĀNMATĪ JĪ

Pūjya Āryikāratna Śrī Jñānmatī Jī was born on Oct. 22, 1934 (Śarada Pūrṇimā Vikram Samvat 1991) at Tikaitnagar (Barabanki) (U.P.). Late Śrī Chotelala Jī, a renowned capitalist and trader of his region, was her father. Late Smt. Mohinīdevī Jaina (Late Āryikā Ratnamatī Jī) was her mother. She always opposed the proposals of her marriage and accepted brahmacarya vrata (full control over her sexual desire) at avery early stage.

At the age of 19 years, i.e. in 1953, she became successful to get the 'Chhullikā Vrata' (a stage of Digambara Jaina ascetic life through which any lady can develop her soul for the performance of Mahāvratas) at Śrī Mahāvīra Jī (Rajasthan) from Ācāryaratna Śrī Deśabhūṣaṇa Jī Mahārāja. In the process of developing her soul and dedication to the Digambera Jaina ascetic life. She decided to become Āryikā (a stage of ascetic life in which the concerned lady follows five māhāvratas, namely Ahiṁsā, Satya, Asteya, Brahmacarya, Aparigraha). She was given Āryikāvrata in 1956 (Vikram Samvat 2013) at Mādhorājapurā (Rajasthan) by late Ācārya Śrī Vīra Sāgara Jī Mahārāja, pupil of Cāritra Cakravartī Late Ācārya Śrī Śānti Sāgar Jī Mahārāja.

Besides, practising the prescribed austerities and rules as laid down in the Jaina scriptures, she is specially devoted to the study and teaching of Jaina Philosophy, Logic, Geography, Grammar, Poetry etc. Many experts of these subjects are her pupils. The unique feature of her teaching is this that some of her pupils have accepted Jaina ascetic life. Some of them have become the Digambera Jaina Munis, which is a higher post than Āryikā (which she has) in spiritual context.

In 1972, under her inspiration some leading Digambara Jainas of India founded a new institute, known as Digambara Jaina Institute of Cosmographic Research (दि० जैन त्रिलोक शोध संस्थान), Hastinapur (Meerut). The objective of the Institute is to throw further light on the scientific aspect of Karṇānuyoga section of Jaina literature and the wide publicity of the fundamental principles of Jainism. To achieve it, the first step taken was the implementation of a multipurpose scheme of construction of a model of Jambūdvīpa according to the details available in Jaina literature.

In the Institute, working under the guidance of Mātājī (Śrī Jñānmatī Jī), a publication division is also working since 1974. Up till now 88 books have been published by this division under the series entitled 'Vīra Jñānodaya Granthmālā'. The Institute is also publishing a Hindi monthly intitled 'Samyagjñāna' (सम्यग्ज्ञान) since 1974. It contains simple articles on all four sections of Jaina literature called 'Anuyoga' written by Mātājī.

Her devoted acedemic and religious life is a source of inspiration to all. In fact, it is not possible for a person like me to list out her services in any article.

LIST OF THE BOOKS WRITTEN BY PŪJYA ĀRYIKĀRATNA ŚRĪ JÑĀNMATĪ JĪ

A—PUBLISHED

1. Aṣṭa Sahasrī (Vol I with Hindi commentary).
2. Jaina Jyotirloka.
3. Triloka Bhāskara.
4. Sāmāyika.
5. Nyāyasāra.
6. Bhagavāna Mahāvīra Kaise Bane.
7. ✓ Jambūdvīpa Maṇḍala Pūjana Vidhāna.
8. Tīrthaṅkara Mahāvīra Aura Dharmatīrtha.
9. Śrī Vīra Jina Stuti.
10. Aitihāsika Tīrtha Hastināpura.
11. Dravya Saṁgraha.
12. Ātmā kī Khoja.
13. ✓ Jambūdvīpa.
14. Bāla Vikāsa—Vol. 1.
15. Bāla Vikāsa—Vol. 2.
16. Bāla Vikāsa—Vol. 3.
17. Bāla Vikāsa—Vol. 4.
18. Samādhi Śataka Estopadeśa.
19. Āryikā.

20. Dharatī ke Devatā.
21. Vratavidhi evam Pūjā.
22. Indradhvaja Vidhāna.
23. Pratijñā.
24. Pravacana Nirdeśikā.
25. Chaubīsa Tīrthaṅkara.
26. Ārādhanā.
27. Śikṣaṇa Paddhati.
28. Pañca Parameṣṭhī Vidhāna.
29. Tīsa Chaubīsī Vidhāna.
30. Bhagvāna Bāhubalī.
31. Ratnakaraṇḍa Padyāvalī.
32. Bhakti.
33. Prabhāvanā.
34. Ṛṣi Maṇḍala Pūjā Vidhāna.
35. Śāntinātha Pūjā Vidhāna.
36. Nitya Pūjā.
37. Sudarśana Meru Pūjā.
38. Solaha Bhāvanā.
39. Tirthaṅkaratraya Pūjā.
40. Bhagavāna Riṣabhadeva.
41. Rohiṇī Nāṭaka.
42. Saṁskāra.
43. Jīvanadāna.
44. Upakāra.
45. Parīkṣa.
46. Niyamasāra Padyāvalī.
47. Digambara Muni.
48. Jaina Bhāratī.
49. Abhiṣeka Evam Pūjana.
50. Bāhubalī Pūjā.
51. Bāhubalī Nāṭaka.
52. Yogacakreśvara Bāhubalī.
53. Kāmadeva Bāhubalī (in many languages).
54. Bāhubalī Pūjā evam Stotra.
55. Jambūdvīpa Guide.
56. Jaina Bāla Bhāratī—Vol. I.
57. Jaina Bāla Bhāratī—Vol. II.
58. Jaina Bāla Bhāratī—Vol. III.

59. Nārī Āloka—Vol. I.
60. Nārī Āloka—Vol. II.
61. Daśa Dharma.
✓ 62. Jaina Bhūgola.
63. Ādi Brahmā.
64. Jñana Jyoti Guide.
65. Hastināpura.
66. Merī Smṛtiyān.
67. Pativratā.
68. Āte kā Murgā.
69. Ekāṅkī—Vol. I.
70. Ekaṅki—Vol. II.
71. Purudva Nāṭaka.
72. Jaina Dharma.
73. Jambūdvīpa and Hastināpura.
74. Jinaguṇasampatti Vidhāna.
75. Niyamasāra.
76. Jaina Geography (Eng.).
77. Compassion (Eng.).
✓ 78. Jambūdvīpa Pūjā.
79. Hastināpura Pūjā.
80. Kundakunda kā Bhaktirāga.
81. Niyamasāra Prabhṛta.
Spe. 1 Mūlācāra (Hindi Commentary).

B—UNPUBLISHED

1. Aṣṭa Sahasrī—Vol. 2 (with Hindi Commentary).
2. Aṣṭa Sahasrī—Vol. 3 (with Hindi Commentary).
3. Aṣṭa Sahasrī—Vol. 4 (with Hindi Commentary).
4. Hindi Translation of Mūlācāra with Saṁskṛta Commentary—Vol. 2.
5. Hindi Translation of Niyamasāra with Commentary.
6. Laghīyastrayādi with Own Commentary.
7. Laghīystrayādi with Tātparyavṛtti.
8. Bhāvasaṁgraha.
9. Bhāva Tribhaṅgī.
10. Āsrava Tribhaṅgī.
11. Aṣṭa Sahasrī Sāra.
12. Pañca Meru Vidhāna.

13. Dīpāvalī Pūjana.
14. Tīrthaṅkara Stotra.
15. Adhyātma Sāra.
16. Satya Kī Parakha.
17. Mukti Patha.
18. Śrāvaka Dharma.
19. Varṣā Yoga.
20. Jīvasthāna.
21. Gati-Agati.
22. Niyamasāra Kalaśa.
23. Digambara Jainācārya.
24. Gaṇadharavalaya Vidhāna evam Stotra.
25. Pātrakesarī Stotra.
26. Ālāpa Paddhati.
27. Āpta Mīmāṁsā-Padyāvalī.
28. Stotra Saṁgraha.
29. Gurubhakti.
30. Carcāsāra.
31. Saptaparamasthāna.
32. Vratavidhi evam Pūja, Vol. 2.
33. Vratavidhi evam Pūjā, Vol. 3.
34. Vratavidhi evam Pūjā, Vol. 4.
35. Ācārya Vīrasāgara Carita.
36. Rohiṇī Kathā.
37. Tīsa Chaubīsī Stotra (Hindi and Saṁskṛita).
38. Gyāraha Sthāna.
39. Kātantra Vyākaraṇa.
40. Jainendra Prakriyā Vyākaraṇa.

Mahāvīrajayanti
1985

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EDITORIAL

Since long we feel a strong need to publish English Translations the geographical works of Pūjya Āryikāratna Śrī Jñānmatī Mātā Jī. A few months ago we have published the English translation of the small booklet 'Jambūdvīpa Guide' in which any one can find a brief description of Jambūdvīpa. The present one is the English translation of our new publication 'Jaina Bhūgola' (Jaina Geography) which is the collection of a very few interesting and popular articles of Pūjya Māta Jī originally written in Hindi. I have found some alteration made by the translator here and there; therefore I would like to suggest our readers that in case of any confusion they must consult the original Hindi version.

The translator of this book, Dr. Sajjan Singh Lishk, is well known among the Indian astronomers. After getting Master's degree in Mathematics he devoted himself to the deep study of Jaina Astronomy and got Ph.D. on the topic 'Mathematical analysis of post-Vedānga pre-Siddhānatica and data in Jaina astronomy' from Punjabi University, Patiala in 1977. At present he is continuing his work for D.Sc. He has already contributed many valuable research papers on Jaina Astronomy to different Indian and International Journals. On behalf of the Institute and myself too I would like to express our sincere thanks to Dr. Lishk for translating it.

I am also very much thankful to Prof. L. C. Jain (Jabalpur) and Śrī Anupam Jain (Biaora) for taking pains to go through the translated manuscript and giving their valuable suggestions. Suggestions for further improvement of the work will be highly appreciated.

R. K. JAIN
Editor

TRANSLATOR'S NOTE

The present work 'Jaina Geography' is a liberal English version of the Hindi work 'Jaina Bhūgola' by Her Holiness Pūjya Āryikāratna Śrī Jñānmatī Mātā Jī. It comprises in simple language of the geographical texts as extant in Jaina Āgamas of Digambara sect. The works like Trilokasāra, Jambūdīva Paṇṇattī, Tattvārtha Sūtra, Tattvārtha Ślokavārtika, etc. have been mainly depended upon. The various geographical texts scattered here and there have been compiled together to develop a consistent picture. The scholars interested in research in this hitherto unexplored field can have a complete insight at a glance through this work so as to venture delving deep into the secrets of Jaina geographical knowledge as propounded in the Jaina Āgamas.

Here it is worth mentioning that the compendium of geographical knowledge is not merely a piece of fiction or literature, but it is much more than the limits of comprehension of a layman scholar. Before we can really make out the underlying sense implied in the text, attention should be focussed on several points such as given below:

Firstly, the terminology current at the time of compilation of the Āgamas has to be understood in the relevant contexts. Several terms have changed their meaning in the course of time. Dictionary of Jaina technical terms can be made use of in this context.

Secondly, different systems of length-units should be kept in view while converting the length of a yojana into the number of British miles. It is worth noticing that it was in 1878 A.D. when the length of a British mile was finally established. Different length units known by the same name were used at different places at a time and at different times at a place. Time and place have to be kept in view while dealing with any length-unit. The length of a yojana has been dealt with in a separate chapter.

Thirdly, while locating the different places on earth, the phenomenon of continual change over the surface of the earth due to earthquakes and volcanic eruptions etc. has to be observed seriously. Even the ocean is converted into dry land in ages and vice versa.

Rivers change their paths with the passage of time. Some of the regions having been washed away would never be located anywhere.

Fourthly, some geographical descriptions have multiple meanings. For example, the mount Meru located at the centre of Jambūdvīpa presents a geographical site on the one hand whereas its dimensions on the other hand present such a consistent mathematical picture that it appears to have implied the astronomical notion of obliquity of ecliptic in it.

Fifthly, many of the geographical descriptions have been observed through extra-sensory perception by the Jainācāryas. For example, some of the towns of Nāgkumara devas as located in celestial space at a distance of 700 yojanas from coast and a height of 700½ yojanas from top of lavaṇa samudra, cannot be observed through the physical eyes we have.

In the light of the above facts, it may be emphasized that the present work may be given a patient reading. Only a rational approach for exploring the facts garbed in the religious lore is wanting from the scholars who not only should be as objective as possible in their research findings, but they should also be devoted to the cause of furthering the true knowledge of this universe.

Here it is indeed worthwhile to express my deep sense of gratitude towards Her Holiness Pūjya Āryikāratna Śrī Jñānmatī Mātā Jī, a moving encyclopaedia of Jaina Āgamas, who has been very kind to assign this task to me. In this connection I also thank the authorities of Digambara Jaina Institute of Cosmographic Research, Hastinapur in particular, and the Digambara Jaina community in general.

Comments and suggestions are invited for the improvement of text.

Oct. 1983 S. S. LISHK

CONTENTS

Sr. No. *What* *Where*

Translator's Note
1. The Three Lokas (तीन लोक) 13
2. Madhyaloka (मध्यलोक) 16
3. Jambūdvīpa (जम्बूद्वीप) 20
4. Dimensions of Mountains in Jambūdvīpa (जम्बूद्वीप में पर्वतों का आकार) 27
5. Bharata Kṣetra (भरत क्षेत्र) 33
6. Manuṣya Loka (मनुष्य लोक) 37
7. Āryakhaṇḍa and Cycles of Avasarpiṇī and Utsarpiṇī (आर्यखण्ड एवं अवसर्पिणी-उत्सर्पिणी चक्र) 42
8. Lavaṇa Samudra (लवण समुद्र) 47
9. Nandīśvara Dvīpa (नन्दीश्वर द्वीप) 54
10. Length of a Yojana (योजन की माप) 58

THE THREE LOKAS

At the very middle of alokākāśa, there exists human-like lokākāśa having a dimension of 343 rajjus and being contaminated with five types of fluids like Jīva, Pudgala, Dharma, Adharma and kāla. Beginningless and endless, it was generated by itself. It is divided into three parts as mentioned below:

1. Adholoka (अधोलोक)—its base is similar to vetrāsana (wedge).
2. Madhyaloka (मध्यलोक)—it appears like the upper portion of a standing mṛdaṅga (trumpet),
3. Ūrdhva loka (ऊर्ध्व लोक)—it appears like a standing mṛdaṅga.

The complete loka has a height of 14 rajjus (राजू) and a thickness of 7 rajjus throughout. Adholoka and ūrdhvaloka have a height of 7 rajjus each (with 7 rajjus as hell and 7 rajjus as heaven) and in between them lies the madhyaloka having a height of 100040 yojanas, the height of Sumeru (सुमेरु) stretched over madhyaloka. The breadth at the base of hell is 7 rajjus and it reduced to 1 rajju in madhyaloka and again increases to 5 rajjus in fifth heaven and again decreases to 1 rajju in Siddhaśilā (सिद्धशिला).

Passing through the middle of three lokas, there exists a Trasanālī (त्रसनाली) (tube) having a length and breadth 1 rajju each and height a little less than 13 rajjus. It contains Trasajīvas (त्रसजीव).

The detailed description of variation of breadth from base of adholoka to the top of Siddhaśilā is given as under:

A. *From Adholoka to Madhyaloka*

Place	*Breadth* (*Rajjus*)
Base of adholoka	7
Near the 7th earth (Mahātamaḥ prabhā)	$6\frac{1}{7}$
Near the 6th earth (Tamaḥ prabhā)	$5\frac{2}{7}$
Near the 5th earth (Dhūma prabhā)	$4\frac{3}{7}$
Near the 4th earth (Paṅka prabhā)	$3\frac{4}{7}$
Near the 3rd earth (Bālukā prabhā)	$2\frac{5}{7}$

Place	*Breadth* (*Rajjus*)
Near the 2nd earth (Śarkarā prabhā)	$1\frac{6}{7}$
Near the 1st earth (Ratna prabhā)	1

B. *Breadth of Madhyaloka* is 1 rajju throughout.

C. *Breadth of Loka in Ūrdhvaloka* (From first heaven to Siddhaśilā) (सिशिसला)

Place	*Breadth* (*Rajjus*)
In madhyaloka	1
At the end of Saudharma (सौधर्म), Īśana (ईशान) heaven	$2\frac{5}{7}$
At the end of Sānatkumāra, (सानत्कुमार), Mahendra (माहेन्द्र) heaven	$4\frac{3}{7}$
At the end of Brahma (ब्रह्म), Brahmottara (ब्रह्मोत्तर) heaven	5
At the end of Lāntava (लान्तव), Kāpiṣṭha (काविष्ठ) heaven	$4\frac{3}{7}$
At the end of Śukra (शुक्र), Mahāśukra (महाशुक्र) heaven	$3\frac{6}{7}$
At the end of Satāra (सतार), Sahasrāra (सहस्रार) heaven	$3\frac{2}{7}$
At the end of Ānata (आनत), Prānata (प्रानत) heaven	$2\frac{5}{7}$
At the end of Āraṇa (आरण), Acyuta (अच्युत) heaven	$2\frac{1}{7}$
In 9 Graiveyka (नव ग्रीवक), 9 Anudiśa (नव अनुदिश), 5 Anuttara (पंच अनुत्तर) and till Siddhaśilā.	1

The front part of dhvaja (ध्वज) (flag) as related to respective last Indravimāna (इन्द्रविमान), marks the end of a particular heaven. The end of the loka is the end of the earth. There are 8 earths in Jaina Siddhānta (सिद्धांत) viz. 7 earths of 7 hells and one earth of mokśa (मोक्ष) (liberation).

DESCRIPTION OF VĀTAVALAYAS (वातवलय) (BELTS OF WIND)

There are three stable belts of wind (unlike the unstable wind in general) in outward order round the lokākāśa, (लोकाकाश), viz. Ghanodadhivātavalaya (घनोदधिवातवलय), Ghanavātavalya (घनवातवलय) and Tanuvātavalaya (तनुवातवलय) having the colour of cowurine, the colour of cubical coral (मूंगा) and multi-colours respectively. There exists Alokākāśa (अलोकाकाश) ahead of Tanuvātavalaya (तनुवातवलय).

The thickness of these vātavalayas are 20000 yojanas each from the base of 8 earths upto the height of 1 rajju. In the 7th hell adjacent to the earth their heights are 7, 5 and 4 yojanas, respectively and decrease to 5, 4 and 3 yojanas in the region adjacent to Brahma heaven and again decrease to 5, 4, and 3 yojanas at the end of Ūrdhvaloka, respectively. At the top of loka the thicknesses of these vātavalayas are 2 kośas, 1 kośa and 1 kośa less by 425 dhanuṣas (धनुष) respectively.

VOLUME OF LOKA

The breadth of loka is 7 rajjus at the base, 1 rajju at its middle portion, 5 rajjus in 5th heaven and 1 rajju at the top. Thus the total breadths add up to 14 $(7 + 1 + 5 + 1)$ which when divided by 4 gives $3\frac{1}{2}$ which when multiplied by 7, the south-northern thickness of loka, gives $24\frac{1}{2}$ as the product. Now when $24\frac{1}{2}$ is multiplied by 14 rajjus, the product is 343 ghana rajjus as the volume of loka.

MADHYALOKA

Madhyaloka comprises of one Rajju as length breadth and one Lakh yojanas height. The number of dvipas (islands) and oceans in it equals the number of hair in twenty-five kodākodī (कोड़ाकोड़ी) uddhāra palyas, i.e. the number is uncountable in simple words. Islands and oceans form alternate rings with Jambūdvīpa (the island of Jambū), the only disc of land mass, at the centre. The islands are stretched over Citrābḥūmi (चित्राभूमि) which is one thousand yojanas higher than vajrābhumi (वज्राभूमि) embraced by all the oceans. The alternate positions of islands and oceans in their proper order are given as under.

LIST OF INNERMOST SERIES OF ISLANDS AND OCEANS

Sr. No.	*Island*	*Ocean*
1.	Jambūdvīpa (जम्बूद्वीप)	Lavaṇa samudra (Salt ocean) (लवण समुद्र)
2.	Dhātakīkhaṇḍa dvīpa (धातकी खण्डद्वीप)	Kālodadhi samudra (कालोदधि समुद्र)
3.	Puṣkaravara dvīpa (पुष्करवर द्वीप)	Puṣkaravara samudra (पुष्करवर समुद्र)
4.	Vāruṇīvara dvīpa (वारुणीवर द्वीप)	Vāruṇīvara samudra (वारुणीवर समुद्र)
5.	Kṣīravara dvīpa (क्षीरवर द्वीप)	Ksīravara samudra (क्षीरवर समुद्र)
6.	Ghṛtavara dvīpa (घृतवर द्वीप)	Ghṛtavara samudra (घृतवर समुद्र)
7.	Kṣaudravara dvīpa (क्षौद्रवर द्वीप)	Kṣaudravara samudra (क्षौद्रवर समुद्र)
8.	Nandīśvara dvīpa (नदीश्वर द्वीप)	Nandīśvara samudra (नदीश्वर समुद्र)
9.	Aruṇavara dvīpa (अरुणवर द्वीप)	Aruṇavara samudra (अरुणवर समुद्र)

Sr. No.	*Island*	*Ocean*
10.	Aruṇābhāsa dvīpa (अरुणाभास द्वीप)	Aruṇābhāsa samudra (अरुणाभास समुद्र)
11.	Kuṇḍalavara dvīpa (कुंडलवर द्वीप)	Kuṇḍalavara samudra (कुंडलवर समुद्र)
12.	Śaṇkhavara dvīpa (शंखवर द्वीप)	Śaṇkhavara samudra (शंखवर समुद्र)
13.	Rucakavara dvīpa (रुचकवर द्वीप)	Rucakavara samudra (रुचकवर समुद्र)
14.	Bhujagavara dvīpa (भुजगवर द्वीप)	Bhujagavara samudra (भुजगवर समुद्र)
15.	Kuśavara dvīpa (कुशवर द्वीप)	Kuśavara samudra (कुशवर समुद्र)
16.	Krauncavara dvīpa (क्रौंचवर द्वीप)	Krauncavara samudra (क्रौंचवर समुद्र)

Dimensions of Islands and Oceans

Diameter of Jambūdvīpa is one lakh yojanas. Diameter of the Lavaṇasamudra is two lakh yojanas, double the diameter of Jambūdvīpa. Likewise the diameter goes on doubling subsequently till the diameter of Krauncavara samudra is computed.

After these islands and oceans, thirty two in total number, there exist innumerable islands and oceans which precede the last series of sixteen islands and sixteen oceans whose names starting from the last ocean Svayambhūramaṇa ocean backward to the first island manaḥśila dvīpa, (मनःशिल द्वीप) are stated as given below:

List of Outermost Series of Islands and Oceans

Sr. No.	*Ocean*	*Island*
1.	Svayambhūramaṇa samudra (स्वयंभूरमण समुद्र)	Svayambhūramaṇa dvīpa
2.	Abhīndravara samudra (अभीन्द्रवर समुद्र)	Abhīndravara dvīpa
3.	Devavara samudra (देववर समुद्र)	Devavara dvīpa
4.	Yakṣavara samudra (यक्षवर समुद्र)	Yakṣavara dvīpa

Sr. No.	*Ocean*	*Island*
5.	Bhūtavara samudra (भूतवर समुद्र)	Bhūtavara dvīpa
6.	Nāgavara samudra (नागवर समुद्र)	Nāgavara dvīpa
7.	Vaiḍūrya samudra (वैडूर्य समुद्र)	Vaiḍūrya dvīpa
8.	Vajravara samudra (वज्रवर समुद्र)	Vajravara dvīpa
9.	Kāñcana samudra (कांचन समुद्र)	Kañcana dvīpa
10.	Rūpyavara samudra (रूप्यवर समुद्र)	Rūpyavara dvīpa
11.	Hiṅgula samudra (हिंगुल समुद्र)	Hiṅgula dvīpa
12.	Añjanavara samudra (अंजनवर समुद्र)	Añjanavara dvīpa
13.	Śyāma samudra (श्याम समुद्र)	Śyāma dvipa
14.	Sindūra samudra (सिन्दूर समुद्र)	Sindūra dvīpa
15.	Haritāla samudra (हरिताल समुद्र)	Haritāla dvīpa
16.	Manaḥśila samudra (मनःशिल समुद्र)	Manaḥśila dvipa

As a general rule, an island always precedes the ocean. Thus the outermost ocean is Svayambhūramaṇa samudra.

'*What and Where' Description in the Islands*

Jambūdvīpa, Dhātakīhhaṇḍa (धातकीखंड) dvīpa and half of the third Puṣkaravara dvīpa (पुष्करवर द्वीप) make a system of Aḍhāī dvīpas (अढ़ाई-द्वीप) (two and a half islands) on whose bhogabhūmi (भोगभूमि) and karmabhūmi (कर्मभूमि) the human beings do take birth. In Puṣkaravara dvīpa, there exists a ring type Mānuṣottara parvata (मानुषोत्तर पर्वत) (mountain) beyond which human beings do not live at all. Then beginning from rest of the half of Puṣkaravara dvīpa right upto the half of Svayambhūramaṇa dvīpa (स्वयंभूरमण द्वीप), only tiryañchas (sub-human) (तिर्यञ्च) reside. These tiryañcas are the product of bhogabhūmis. They are born in pairs, live for an utkṛṣṭa (maximal) life of one palya and obtain the rank of a deva after death. In this context, it is stated in Jambūdvīpa Pannattī (जम्बूद्वीप पण्णत्ति), 11th Uddeśa, as:

"In the innumerable islands, except Jambūdvīpa, Dhātakīkhaṇḍa dvīpa, half of the Puṣkaravara dvīpa and half of the Svayambhūramaṇa dvīpa, the animals with five senses, the tiryañcas, with a life of one palya, do take birth. They are 2000 dhanuṣas (धनुष) long, built with delicate limbs, mandakaṣāīs (मन्दकषायी) and reapers of fruit. They are born in pairs. They take food on alternate days. After death, they reach the suraloka (सुरलोक). They are not reborn anywhere else as enunciated by the omniscients." (Jambūdvīpa-paṇṇattisaṁgaho, 11th uddesaka)

In the Svayambhūramaṇa dvīpa, there exists Svayamprabhā parvata (स्वयंप्रभा पर्वत) just similar to Mānuṣottara parvata (मानुषोत्तर पर्वत). On this side of it, there live tiryañcas who are product of bhogabhūmi. These tiryañcas do not include animals with two senses, three senses and four senses who are the product of karmabhūmi and live on the other side of the Svayamprabhā parvata.

Real Jina Temple

Real Jina temples, 458 in number, exist over the land stretched from Jambūdvīpa upto Rucakavara dvīpa (रुचकवर द्वीप), the thirteenth in number.

Where and What Type of Water in Oceans

The water of Lavaṇasamudra tastes, like its name indicates i.e. saltish, the taste of Lavaṇa (common salt). Likewise the water of Vāruṇīvara samudra tastes like the madya (मद्य) (wine), of Ghṛtavara samudra like Ghee (घी) (heated butter) and of Kṣīravara samudra like dūdha (milk). The water of the Kṣīravara samudra is used for Janmābhiṣeka (जन्माभिषेक) of tīrthaṅkaras.

The water of Kālodadhi samudra, Puṣkaravara samudra and Svayambhūramaṇa samudra tastes like the ordinary water.

The taste of water of all the rest of oceans is similar to the taste of ikṣurasa (इक्षुरस) i.e. sugarcane.

The watery animals abound in Lavaṇa samudra, Kālodadhi samudra and Svayambhūramaṇa samudra only and in no other ocean.

Thus the brief description of Madhyaloka ends.

JAMBŪDVĪPA

Jambūdvīpa, the circular land mass, is divided in seven regions namely Bharata (भरत), Haimavata (हैमवत), Hari (हरि), Videha (विदेह), Ramyaka (रम्यक), Hairanyavata (हैरण्यवत) and Airāvata (एरावत), by the placement of six mountains viz. Himavana (हिमवन), Mahāhimavana (महाहिमवन), Niṣadha (निषध), Nīla (नील), Rukmī (रुक्मी) and Śikharī (शिखरी). The north-southern stretch of Bharata region is $525\frac{6}{19}$ yojanas. The stretch goes on doubling till we reach videha region after which it again goes on reducing by one half.

Due to kāla parivartana (काल परिवर्तन) (six variations of time-measurement e.g. suṣamā-suṣamā (सुषमा सुषमा) etc.) the existence of different bhūmis in different kṣetras (क्षेत्र) (regions) are given as under:

Keṣtras (क्षेत्र)	*Bhūmi* (भूमि)
Bharata and Airāvata (भरत और एरावत)	Karmabhūmi (कर्मभूमि)
Haimavata (हैमवत) and Hairanyavata (हैरण्यवत)	Jaghanya bhogabhūmi (जघन्य भोगभूमि)
Hari (हरि) and Ramyaka (रम्यक)	Madhyama bhogabhūmi (मध्यम भोगभूमि)
Devakuru (देवकुरु) and Uttarakuru (उत्तरकुरु) in Videha	Uttama bhogabhūmi (उत्तम भोगभूमि)

In Videhakṣetra, due to the existence of 16 vakṣāra parvatas and 12 vibhaṅga rivers there become 32 kṣetras whose names are kaccha, sukaccha etc. In all these 32 kṣetras, karma bhūmi exists for ever and is therefore called as universal karmabhūmi.

The north-southern stretch of Videha kṣetra is $33684\frac{4}{19}$ yojanas and east-western length 100000 yojanas; right at its centre, there exists the mount Sudarśana Meru having 100040 yojanas height and 10000 yojanas base-diameter which continuously reduces to 4 yojanas at the top. On four directions each of meru there exists a gajadanta parvata touching Meru on one side and

Nīla parvata on the other side. These mountains have also demarcated the four directions of Videha. Towards north of Sumeru, there is Jambu tree situated in the Īśāna koṇa (north-western direction) in Uttarakuru. Similarly towards south of Sumeru, there is Śālmalī tree situated in thę Āgneya koṇa (south-eastern direction) in Devakuru. In both the Kuru regions there are ten types of kalpa trees and there exists Uttama bhogabhūmi for ever.

In east-western directions of Sumeru in Videha, the rivers—Sīta and Sītodā—flow. This causes the division of eastern and western regions of Videha into northern and southern portions each. In east of Sumeru and north of Sītā river, first of all there occurs Vedikā of Bhadraśālavana, followed by kṣetra, and Vakṣāra parvata having a stretch of 500 yojanas and length of $16592\frac{2}{19}$ yojanas and height of 400 yojanas near Nīla parvata and 500 yojanas near Sītā river. This is a golden mountain with four kūṭas. There is a Jina temple at the Kūṭa near the river and gods and goddesses live at rest of the three kūṭas. This mountain is followed by kṣetra, Vibhaṅgā river, again kṣetra and Vakṣāra parvata. In this series there exist four Vakṣāra parvatas and three Vibhaṅga rivers which divide Videha into eight regions. Similarly there are eight regions towards the south of Sītā river. Similarly in western Videha, towards south and north of Sītā river there are eight regions each. Thus there are 32 kṣetras in all whose names are given as under:

Kacchā, Sukacchā, Mahākacchā, Kacchakāvatī, Āvartā, Lāṅgalāvartā, Puṣkalā, Puṣkalāvatī, Vatsā, Suvatsā, Mahāvatsā, Vatsakāvatī, Ramyā, Suramyā, Ramaṇīya, Ramyakāvatī, Padmā, Supadmā, Mahāpadamā, Padamakāvatī, Śaṇkhā, Nalinī, Kumuda, Saritā, Vaprā, Suvaprā, Mahāvaprā, Vaprakāvatī, Ganlhā, Suganhā, Gandhilā, and Gandhamālinī.

Description of Kacchā Videha (कच्छा विदेह)

Kacchā Videha kṣetra is stretched over $2212\frac{7}{8}$ yojanas and $16592\frac{2}{19}$ yojanas in the east-western and south-northern directions respectively. In this region, there exists Vijayārdha mountain having 50 yojanas breadth, $2212\frac{7}{8}$ yojanas length and 25 yojanas height, on both sides of which there exist two Vidyādhara śreṇīs each. On every Vidyādhara Śreṇī there are 55 villages of human beings. There are nine kūṭas over Vijayārdha parvata. There is a Jina temple at one kūṭa and palaces of devas on rest of the eight kūṭas. Gaṅgā and Sindhu rivers starting from two kuṇḍas situated at the bottom of Nīla parvata, passing through the Timisra and Khaṇḍaprapāta caves of Vijayārdha parvata fall into sītā river. Vijayārdha parvata and Ganges and Sindhu rivers divide Kacchā region into six portions. The portion situated near the middle of river is Āryakhaṇḍa and rest of the five portions are Mleccha-khaṇḍas. Āryakhaṇḍa has 714 yojanas breadth and $8271\frac{1}{17}$ yojanas length. At central place of Āryakhaṇḍa there exists Kṣema town which is capital of Āryakhaṇḍa. This ends the description of Kacchā Videha. Similarly the description of rest of the 31 regions of Videha may be understood.

Establishment of Videha Kṣetra

Every Videha has 96 crores villages, 26000 towns, 16000 kheṭas, 24000 kharvaḍas, 4000 maḍambas, 48000 pattanas, 99000 droṇas, 14000 saṃvāhas, and 28000 durgāṭavīs.

The area fenced with thorns all around is called a grāma (village), the area having four gates and encircled with high walls is called nagara (town). The area encircled with river and mountain is called kheṭa. Kharvaḍa is the region encircled by mountains. Five hundred villages make a maḍamba. The place with mines of precious stones is known as pattana. The region encircled with river is called droṇa, encircled with the ocean saṃvāha and situated at the mountain durgāṭavī. In every Videha kṣetra, in the Āryakhaṇḍa situated in between the capital and the major river, there exists a sub-ocean with an island, having 56 sub-islands, 26000 ratnākaras and 700 kukṣivāsas for purchase and sale of precious stones.

In the eastern direction near the water of Sīta and Sitodā rivers there exist three islands—Magadha, Varatanu and Prabhāsa—where Vyantara devas reside.

Rainy Season in Videha Kṣetra

Through seven kinds of black clouds (कालमेघ) it rains for 7 days each i.e. 49 days in all. Though 12 kinds of white clouds known as Droṇa, it rains for 7 days each i.e. 84 days in all. Thus 49 + 84 make 133 days on which it rains in Videha Kṣetra in rainy season.

What Nots in Videha Kṣetra

In Videha Kṣetra, a famine never takes place. Seven kinds of 'excesses' do not exist, viz. 1. Over-rainfall, 2. Under-rainfall,

3. Rats trouble, 4. Locust trouble, 5. Parrots trouble, 6. Sacakra (self-created) trouble, 7. Paracakra (created by others) trouble.

Māri roga (epidemic) i.e. unusual deaths of human beings or cows, does not take place. Devils, emotionally disturbed saints, and bad natured beings also do not exist. (See Trilokasāra, vv. 674–680.)

In Videha, human beings of 500 utkṛṣṭa dhanuṣas avagāhanā with an age of one koṭi pūrva years, belonging to Kṣatriya, Vaiśya and Śūdra castes and earning their livelihood through Asi, Masi and Kṛṣi (agriculture) respectively reside. The general public follow their duties and responsibilities according to rules mentioned for Śrāvakas, while there exist Munis also who follow their dharma (Muni dharma). Tīrthaṅkaras, Chakravartīs, Bālabhadras, Nārāyaṇas and Pratinārāyaṇas do come at all times. The number of tīrthaṅkaras varies from 4 to 32 at any time. Four tīrthaṅkaras, viz. Sīmandhara (सीमन्धर), Yugamandhara (युगमन्धर), Bāhu (वाहु) and Subāhu (सुवाहु), also known as Virahamāṇa tīrthaṅkaras, exist at present. Likewise in connection with five Merus, there are 160 (32×5) Videhas. In all, the number of tīrthaṅkaras and cakravartīs etc. varies from 20 to 160 (see Trilokasāra v. 681).

Fourteen Rivers

At 6 mountains viz. Himavan etc., there exist six oceans, namely Padma (पद्म), Mahāpadma (महापद्म), Tigiñccha (तिगिञ्छ), Kesarī (केसरी), Mahāpuṇḍarīka (महापुण्डरीक) and Puṇḍarika (पुण्डरीक). From Padma and Puṇḍarīka oceans there flow three rivers each and from rest of the four oceans only two rivers flow from each. Thus there are 14 rivers viz. Gaṅgā (गंगा) and Sindhu (सिन्धु), Rohita (रोहित) and Rohitāsyā (रोहितास्या), Harita (हरिता) and Harikāntā (हरिकान्ता), Sītā (सीता) and Sītodā (सीतोदा), Nārī (नारी) and Narakāntā (नरकान्ता), Suvarṇakūlā (सुवर्णकूला) and Rūpyakūlā (रूप्यकूला) and Raktā (रक्ता) and Raktodā (रक्तोदा). In the 7 regions viz. Bharata etc. these 14 rivers flow, 2 rivers in each region.

Bharata Kṣetra

Bharata kṣetra is stretched over 526$\frac{6}{19}$ yojanas. In east-western direction, Vijayārdha parvata having 50 yojanas breadth and 25 yojanas length passes through its middle. In the northern and southern sides of this mountain there exist towns of Vidyādharas. This mountain has two caves, namely, Tamisra and Khaṇḍaprapāta. Gaṅgā and Sindhu rivers originating from Padma lake of Himavāna parvata flow for 500 yojanas each upon the parvata in the east-western direction and then turning towards south fall down as streams resembling gomukha (face of the cow). At the bottom of Himavāna parvata, the falling waters produce kuṇḍas (pits) of Gaṅgā and Sindhu respectively. At the kūṭas (peaks) of these two pools, there are bhavanas at the roofs of which real Jina statues in lotus poses are situated having thick hair at the forehead of each. The Gaṅgā and Sindhu rivers touching the lord-heads flow ahead (see Trilokasāra, v. 68). These rivers coming out of kuṇḍas move along wavy paths in the region and passing through the caves of Vijayārdha move through the region again and ultimately fall into the Lavaṇa samudra (salt ocean).

Therefore Vijayārdha parvata and Gaṅgā, Sindhu rivers cause the division of Bharata Kṣetra into 6 portions, one of which situated in the southern direction is Āryakhaṇḍa and rest of the 5 are mleccha khaṇḍas. Amidst the three mleccha khaṇḍas in the northern direction there exists Vṛṣabhāchala parvata where the cakravartī celebrates his victory after winning over the six regions. The distance between Āryakhaṇḍa of Bharata kṣetra and Videha kṣetra is more than 20 crore miles. In Bharata and Airākvata kṣetras, the six-cyclic changes of time always go on moving.

Six-Cyclic Changes of Time

In Bharata and Airāvata kṣetras, the six-cyclic changes of time move along avasarpiṇī and utsarpiṇī periods. During the period of avasarpiṇī, the age, body etc. of living beings go on decreasing and the reverse is true during the period of utsarpiṇī. (See Trilokasāra, Gatha 779). The division of these periods is given as under:

Period	*Sub-Period*	*Duration*	*Bhūmi*
Avasarpiṇī	Suṣama-suṣamā	4 Koḍākoḍī Sāgara	Uttama
	Suṣamā	3 Koḍākoḍī Sāgara	Madhyama
	Suṣamā-duṣamā	2 Koḍākoḍī Sāgara	Jaghanya
	Duṣamā-suṣamā	1 Koḍākoḍī Sāgara +42000 years	Karma
	Duṣama	21000 years	Karma
Utsarpiṇī	Duṣamā-duṣamā	21000 years	Karma

The human beings have their height 3 kośas, and age 3 palyas in Uttama bhogabhūmi, height 2 kośas and age 2 palyas in Madyama bhogabhumi, and height 1 kosa and age 1 palya in Jaghanya bhogabhumi. Here the material for use is obtained from 10 types of Kalpa trees.

At the central place of Āryakhaṇḍa īn Bharata kṣetra there is situated Ayodhyā town, 119 yojanas south of which exists the vedikā of salt ocean and at an equal distance towards the northern direction exists the vedikā of Vijayārdha parvata. Gaṅgā and Sindhu rivers are situated in the eastern and north-western directions at a distance of 1000 yojanas each from Ayodhyā town. Thus Āryakhaṇḍa is demarcated by Lavaṇa-samudra in south, Vijayārdha parvata in north, Gaṅgā river in east and Sindhu river in west.

From Ayodhyā town, towards south at a distance of 47600 miles there exists Lavaṇa samudra, towards north at a distance 47600 miles there exists Vijayārdha parvata, towards east and west at a distance of 400000 miles there exist Gaṅgā and Sindhu rivers each. The whole of the modern world exists within Āryakhaṇḍa and we all here live Bharatavarṣa (India) in Āryakhaṇḍa.

The human beings have their height 500 dhanuṣas and age 11 pūrvakoṭi years in the fourth sub-period i.e. duṣamā-suṣamā, height 7 hastas (hands) and age 120 years in duṣamā, and height 2 hastas and age 20 years in duṣamā-duṣamā.

In the present age of avasarpiṇī, at 1/8 palya as balance of third sub-period, i.e., suṣamā-duṣamā, several Kulakaras namely Pratiśruti (प्रतिश्रुति), Sanmati (सन्मति), Kṣemaṅkara (क्षेमंकर), Kṣemandhara (क्षेमन्धर), Sīmaṅkara (सीमंकर), Sīmandhara (सीमन्धर), Vimalavāhana (विमलवाहन), Cakṣuṣmāna (चक्षुष्मान), Yaśasvī (यशस्वी), Abhichanda (अभिचन्द्र), Chandrābha (चन्द्राभ), Marudeva (मरुदेव), Prasenajita (प्रसेनजित), Nābhirāya (नाभिराय) and his son Ṛṣabhadeva were born. It is worth noticing that here Ṛṣabhadeva, the first tīrthaṅkara, has also been considered as a kulakara whereas in some other texts, Nābhirāya has been termed as 14th and the last Kulakara (cf. Trilokasāra, vv. 792–794).

In this age, when the public brought the living problems before the Lord Ṛṣabhadeva, the Indra, by the order of the Lord, constructed villages, cities, etc. Again the Lord, through clairvoyance (अवधिज्ञान), knew the whole order in Videha kṣetra, established the communal system and showed them the means of livelihood.

The same fact has been revealed by Nemicandrācārya: "Lord

Ṛṣabhanātha, the Originator Brahmā, got constructed cities, villages towns, etc. and established universal behavioral texts, war, writing, agriculture, as well as established the religion of kindness in origin." (पुरगामपट्टणादी लोहियसत्थं च लोयववहारो । धम्मो वि दयामूलो विणिम्मियो आदिब्रह्मेण ॥८०२॥ (Cf. Trilokasāra, v. 802).

DIMENSIONS OF MOUNTAINS IN JAMBŪDVĪPA-SUMERU PARVATA (सुमेरु पर्वत)

At the central portion of Mahāvideha kṣetra (महाविदेह क्षेत्र), the mount Mandara (मदर) (alternate name of Sumeru) is situated where the birth of all the tīrthaṅkaras is celebrated at respective times. Its dimensions are given as under:

Depth of foundation in earth = 1000 yojanas

Height above the earth = 99000 yojanas

Diameter at base deep into the earth = $10090\frac{10}{11}$ yojanas

Diameter at the surface of earth = 10000 yojanas

Regular reduction of diameter at Nandanavana (नन्दनवन), a height of 500 Yojanas above the earth i.e. above Bhadrasālavana = 500 yojanas

Reuction of diameter at a height of 11000 Yojanas above Nandanavana = Nil

Then regular reduction of diameter at Saumanasavana (सौमनसवन), i.e. at a height of 51500 Yojanas = 500 yojanas

Then reduction of diameter at a height of 11000 Yojanas = Nil

Then regular reduction of diameter at Pāṇḍukavana (पांडुकवन), i.e. at a height of 25000 Yojanas = 494 yojanas.

Right at the centre of Pāṇḍukavana, there exists Cūlikā (चूलिका) having a diameter of 12 yojanas at Pāṇḍukavana and it regularly reduces to 4 yojanas at its top, a height of 40 yojanas. The heights of different regions of sumeru when added up together, i.e.

$$1000+500+11000+51500+11000+25000 = 100000 \text{ yojanas.}$$

It is easily discernible that the diameter 10000 yojanas at the surface of earth reduces to 1000 yojanas, at top i.e. 99000 yojanas above the earth. Thus the average decrease of diameter comes out to be $\frac{1}{11}\left(=\frac{100000-1000}{99000}\right)$ yojanas per yojana (see Trilokasāra, v. 614). The average rate of decrease of diameter can be easily converted into any other length-units also. (See Tiloya Paṇṇattī, pp. 375 to 378). The average decrease in diameter of Cūlikā comes out to be $\frac{1}{5}\left(=\frac{12-4}{40}\right)$ yojana. (See Tiloya Paṇṇatti, p. 337.)

The part of mount Meru is vajramaya (वज्रमय) for 1000 yojanas deep into earth, made up of precious stone till 61000 yojanas above the earth, and golden 38000 yojanas above that. Cūlikā is made up of blue-coloured Vaidūrya (वैदूर्य) jewel. (See Tiloya Paṇṇattī, p. 379.)

Apparently, the Mount meru is made up of frustums of cones unlike the other irregular mountains in general. Bhadrasāla vana (भद्रसाल वन), Saumanasa vana (सौमनस वन) and Pāṇḍukavana (पाण्डुक वन) have earthly appearance and they have multiple rows of trees, vanavedikās (वनवेदिका), precious stones, golden flowers, emerald coloured leaves, Campaka (चम्पक) and Aśoka trees, Kalpa trees, Vaidūrya coloured fruit and coral coloured branches. (See Tiloya Paṇṇattī, p. 377 and Jambūdīva Paṇṇattī, p. 93.) All the four vanas (forests) have a Jina temple in all the four directions each respectively. Thus there exist 16 Jina temples.

Jagatī-Parakoṭā of Jambūdvīpa

Jambūdvīpa has been encircled by a jagatī (जगती) having a height of 8 yojanas. The breadth of jagatī it 12 yojanas, 8 yojanas and 4 yojanas at its base, middle and top respectively. Thus it regularly decreases by 8 yojanas for a height of 8 yojanas from base to the top. Thus the average rate of decrease of breadth of jagatī is 1 yojana per yojana. Thus the breadth of jagatī at any place, say x yojanas below the top, is calculated to be $x + 4$ yojanas. For example, for $x = 1\frac{1}{4}$, the breadth of Jagati at a place $1\frac{1}{4}$ yojanas below its top becomes $1\frac{1}{4} + 4 = 5\frac{1}{4}$ yojanas. (See Jambūdiva Paṇṇattī, p. 4). The construction of jagatī is regular at every place.

Parvatas like Himavana Parvata

There are six parvatas, viz. Himavan (हिमवान्), Mahāhimavan (महाहिमवान्), Niṣadha (निषध), Nīla (नील), Rukmi (रुक्मी) and Śikharī (शिखरी). They have a uniform diameter throughout. They reach the extremities of Lavaṇasamudra (लवण समुद्र) in the east-western direction. (See Trilokasāra, 565; Tattvārtha Sūtra, 3; Tiloya Paṇṇattī vv. 94–95.) The precious stones exist on the northern and southern sides of them. They are golden, silvery, hot-golden, vaiḍūrya-stone like, silvery and golden respectively and have a height of 100, 200, 400, 400, 200 and 100 yojanas respectively. Therefore these parvatas are wall-like, greasy, filled with precious stones, beautiful and coloured in the southern and northern sides. They have 11, 8, 9, 9, 8 and 11 kūṭas respectively. The length, breadth and height of these kūṭas look like those of the mounts respectively. All the kutas are round. The height of a kūṭa is one-fourth of the height of the parvata and breadth at the base is also equal to that. Breadth decreases regularly to its half at the top. For example, at the Himavan parvata starting from the eastern direction there exist 11 kūṭas, viz , Siddhakūṭa (सिद्धकूट), Himavan kūṭa (हिमवान्कूट), Bharata kūṭa (भरतकूट), Tilaka kūṭa (तिलककूट), Gaṅgakūṭa (गंगाकूट), Śrīkūṭa (श्रीकूट), Rohitāsya kūṭa (रोहिताश्वकूट), Sindhukūṭa (सिन्धुकूट), Surakūṭa (सुरकूट), Haimavatakūṭa (हैमवतकूट) and Vaiśravaṇa kūṭa (वैश्रवणकूट). Every kūṭa has a height of 25 yojanas and breadth of 25 yojanas at base which decreases to $12\frac{1}{2}$ yojanas at the top, thus $18\frac{3}{4}\left(\frac{25 + 12\frac{1}{2}}{2}\right)$ yojanas at middle. There exists a Jina palace at Siddhakūṭa सिद्धकूट). On other kūṭas, there exist palaces of vyantara devas (व्यंतर देव) called after the name of the kūṭa. (See Tiloya Paṇṇattī, p. 357.)

Gajadanta Parvata

Starting from vāyavya (वायव्य) (north-west) direction of Sumeru, there exist four gajadanta (गजदंत) parvatas (पर्वत), viz. Saumanasa (सौनस), Vidyutprabha (विद्युत्प्रभा), Gandhamādana (गंधमादन) and Mālyavāna (माल्यवान); two of them are stretched upto Niṣadha parvata (निषध पर्वत) and two upto Nīla parvata. Their breadth is 500 yojanas each. Their height is 400 pojanas each near Niṣadha and Nīla parvatas, and increases regularly to 500 yojanas in the viscinity of Meru parvata. (See Tiloya Paṇṇatti, vol. 1, p. 402.) The height of a kūṭa on this yarvata is one-fourth of the height of the parvata at that place. On a gajadanta parvata, there exist 9 kūṭas having their heights 125, $121\frac{7}{8}$, $111\frac{3}{4}$, $115\frac{5}{8}$, $112\frac{4}{8}$, $109\frac{6}{8}$, $106\frac{1}{4}$, $103\frac{1}{8}$ and 100 yojanas respectively. (See Tiloya Paṇṇatti, vol. 1, pp. 406–407.)

TABLE OF DIMENSIONS OF KṢETRAS AND PARVATAS

(All distances have been measured in Yojanas)

Regions	Stretch South-Northern	Length East-Western	Height of Parvatos	Bhūmi in Kṣetras	Verna of Parvatas	Number of Kūṭas on Parvatas	Height of Kūṭas	Breadth of Kūṭas at the	
								Base	Top
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Kṣetra-Bharata	$526\frac{6}{19}$	$1447\frac{5}{19}$	—	Karma and Bhoga (Non-Universal)	—	—	—	—	—
Parvaṭa-Himavan	$1052\frac{12}{19}$	$24931\frac{18}{19}$	100	—	Golden	11	25	25	$12\frac{1}{2}$
K-Haimavata	$2105\frac{5}{19}$	$37674\frac{16}{19}$	—	Bhoga (Jaghanya)	—	—	—	—	—
P-Mahāhimavān	$4210\frac{10}{19}$	$53931\frac{6}{19}$	200	—	Silvery	8	50	50	25
K-Hari	$8421\frac{1}{19}$	$93901\frac{17}{19}$	—	Bhoga (Madhyama)	—	—	—	—	—
P-Niṣadha	$16842\frac{2}{19}$	$94156\frac{2}{19}$	400	—	Hot golden	9	100	100	50
K-Videha	$33684\frac{4}{19}$	100000	—	Karma (East-West) (Universal) Bhoga (South-North) (Utkṛṣhaṭa)	—	—	—	—	—

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
P-Nīla	$16842\frac{2}{19}$	$94156\frac{2}{19}$	400	—	Vaidūrya jewel (Baryl)	9	100	100	50
K-Ramyaka	$8421\frac{1}{19}$	$93901\frac{17}{19}$	—	Bhoga (Madhyama)	—	—	—	—	—
P-Rukmī	$4210\frac{10}{19}$	$53931\frac{6}{19}$	200	—	Silvery	8	50	50	25
K-Hairaṇyavata	$2105\frac{5}{19}$	$37674\frac{16}{19}$	—	Bhoga (Madhyama)	—	—	—	—	—
P-Shikharī	$1052\frac{12}{19}$	$24931\frac{18}{19}$	100	—	Golden	11	25	25	$12\frac{1}{2}$
K-Airāvata	$526\frac{6}{19}$	$14471\frac{5}{19}$	—	Karma and Bhoga (Non-Universal)	—	—	—	—	—

Vakṣāra Parvata

In the northern and southern sides of Sīta river, there are 4 Vakṣāra parvatas and 3 Vibhaṅgā rivers each. Thus each side of Sītā river is divided into 8 regions viz. Citrakūṭa, Nalinakūṭa, Padmakūṭa and Eka Śaila etc. Every Vakṣāra śaila is stretched over 500 yojanas. (See Tiloya Paṇṇattī, vol., 1, p. 425). These Vakṣāras have a height of 500 yojanas near the bank of Sītā river and 400 yojanas in the vicinity of Nīla and Niṣadha parvatas after a regular decrease in height. Every Vakṣāra has 4 kuṭas, the height of which is one-fourth of the height of the parvata at that place respectively. Siddhakūṭa, the first one, is 125 yojanas high and the last kūṭa is 100 yojanas high. (See Tiloya Paṇṇattī, p. 435.)

These descriptions of parvatas clearly indicate that they are well-type structures and not made up of small pieces of round stones as most of the scholars think. The study of āgamas proves to be an eye-opener in case of any doubt or suspicion.

BHARATA KṢETRA

Of infinite attributes of living beings, the foremost one is 'Jñāna' or knowledge just as natural as fire is characterised by heat. The knowledge approaches its completion as we move from lower to higher species. Consequently, as Śrī Samantabhadra remarks that the minute, antique and distant objects are being observed by some one or the other, there must exist an 'Omniscient', Sarvajña (सर्वज्ञ) deva*. Here we mean by minute a paramānu, antique as Rāma and Rāvaṇa, and distant as Sumeru parvata. Our five senses are inadequate to judge the particle (Parmānu). Past, future, and complete knowledge of objecss can only be had through extrasensory perception. Those who are blessed with the divine faculty of extra-sensory perception, are omniscients and words spoken by them form the text of Jināgama the holy scriptures of the Jainas).

Beyond the competency of modern scientists to understand soul, supreme soul, paraloka, paradise, hell, life and death, there lie many secrets which are unravelled through holy scriptures. Just as we, unlike direct observation and estimation, have to accept the existence of our forefathers on the basis of propagation of species through generations, so should we accept the existence of three lokas, madhyaloka, uncountable islands and oceans, Jambūdvīpa, Nandīśvara dvīpa. Knowledge of Sumeru, Videha, Himavān, Vijayārdha, Bharata kṣetra, Āryakhaṇḍa in Jambūdvīpa leads us to believe the places of existence of living beings.

As enunciated by Lord Mahāvīra, the Jināgamas include Ṣaṭkhaṇḍāgama, Kaṣāyapāhuḍa, Tiloyapaṇṇatrī, Trilokasāra, Tattvārthasūtra, Ślokavārtika etc.

Bharata kṣetra, 1/190th part of Jambūdvīpa in Madhyaloka, is stretched over $526\frac{6}{19}$ yojanas. It has six regions.

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*सूक्ष्मान्तरितदूरार्थाः प्रत्यक्षाः कस्याचिद्यथा ।
अनुमेयत्वतोऽग्न्यादिरिति सर्वज्ञ संस्थितिः ॥
—देवागमस्तोत्र

Editor Note: In this portion numerous changes have been made by the translator and some descriptive part was left by him.

Gaṅgā river originating from Padma Sarovara (lake) (1000 yojanas long and 500 yojanas broad) at Himavāna parvata, falls at the basement of Himavāna parvata into Gaṅgā kuṇḍa (pool). Gaṅgā kuṇḍa is stretched over 60 yojanas and it has an island (10 yojanas long, 8 yojanas broad and 2 kośas high) having a Vajramaya parvata (breadth at base 4 yojanas, middle 2 yojanas and top 1 yojana). At the top of this 10 yojanas high parvata there exists a palace 'Gaṅgākūṭa' having a breadth 3000 dhanuṣas at base, 2000 dhanuṣas at middle and 1000 dhanuṣas at top and height 2000 dhanuṣas. It has a vedika, four gopura gates, a Jina temple and a beautiful courtyard. There lives Devi Gaṅgā. At the kūṭa of Devī Gaṅgā there exist statues of Jinendra with hairy crown, in the lotus pose. The living beings who remember Lord Jinendra are liberated. (See Tiloya paṇṇattī, 4.23, Jambūdvīpa paṇṇattī, 162 and Triokasāra, 590.) Gaṅgā river passing through the southern door of the Gaṅgā kuṇḍa enters the cave of Vijayārdha parvata.

Shankar
Jata

At the central portion of Bharata kṣetra, there is situated Vijayārdha parvata, 25 yojanas high and 50 yojanas broad, 9748$\frac{12}{10}$ yojanas long (i.e. touching Lavaṇasamudra in east-western direction). At a height of 10 yojanas over this parvata there exists a śreṇī of Vidhyādharas on both sides each. There are 50 and 60 towns in northen and southern śhrenīs respectively.

Ten yojanas higher than Vidyādhara śreṇīs, there exist śreṇīs of ābhiyogya devas where vyantara devas of the caste used as vehicles by Saudharma Indra reside. Five yojanas higher than here there exist the top (with 10 yojanas breadth) of Vijayārdha parvata. It has 9 kūṭas. There is a Jina temple at the kūṭa in the eastern direction and palaces of gods and goddesses are built on rest of the eight kūṭas.

At the bottom of this parvata, throughout its length, there exist, on both sides, two forests having a breadth of 2 gavyūtis each. The vedikā of the forests is 500 dhanuṣas broad and 2 kośas high and has toraṇa (pylon) gates. There are two caves each 50 yojanas long, 8 yojanas high and 12 yojanas broad, called as Timisra cave in the east and Khaṇḍaprapāta cave in the west, having vajramoya gates.

Gaṅgā river passing through 50 yojanas in Timisra cave goes out through the southern gate. Gaṅgā river flowing 119$\frac{3}{99}$ yojanas in south Bharata turns towards east and having a family of 14000 rivulets reaches Magadha tīrtha and finally merges into

Lavaṇa samudra. The rivulets originating from the kundas of Gaṅgā river flow through the Mlechha khaṇḍas and not in Āryakhaṇḍa at all (See Tiloyapaṇṇattī, 245). The breadth of Gaṅgā river being $6\frac{1}{4}$ yojanas at its place of origination increases to $62\frac{1}{2}$ yojanas when it merges into Lavaṇasamudra.

Description of Sindhu river is alike to that of Gaṅgā river except that Sindhu river originating through the western gate of Padma Sarovara (पद्म सरोवर) and falling at Sindhu Kūṭa enters Khaṇḍaprapāta (खण्डप्रपात) cave. Getting out of the cave, Sindhu river after reaching Prabhāsa tirtha merges into Lavaṇa samudra.

Gaṅgā and Sindhu rivers and Vijayārdha parvata divide Bharata kṣetra into six regions. northern Bharata and southern Bharata having 3 regions each. The middle region of southern Bharata is known as Āryakhaṇḍa (आर्यखंड), rest of the five rigions being called as Mlcchṣakhaṅḍas (मलेच्छखंड).

Vṛṣabhācala (वृषभाचल)

At the central portion of the middle Mlechhakhaṇḍa of northern Bharata, there exists Vṛṣabha mountain over which cakravartīs celebrate their success. This mountain is 100 yojanas high, broad 100 yojanas at the base and 75 yojanas at its middle and 50 yojanas at the top. An angle called Vṛṣabha along with his family lives there in whose palace there exists a universal Jina temple.

Cakravartīs after winning over 6 regions of Bharatakṣetra become Samrāta. Nārāyaṇa Balabhadra and Prati Nārāyaṇa became Ardhacakrī after winning over three regions respectively.

Six-Cyclic Change of Time

Avasarpiṇī (अवसर्पिणी) and utsarpiṇī (उत्सर्पिणी) having six sub-divisions like suṣama-suṣamā etc. each go on passing along the wheel of time. After elapsing asaṁkhyāta cycles of avasarpiṇī and utsarpiṇī, there happens to be a Huṇḍāvasarpiṇī (हुण्डावसर्पिणी) whose indications are given as under:

At balance of some time of third period in Huṇḍāvasarpiṇī, it begins to rain and vikālātraya (विकलात्रय) beings begin to take birth. The kalpa trees become rare and the dealings of karmabhūmi begin. First tīrthaṅkara and first cakravartī also take their births respectively. The victory trend of cakravartī is disturbed and a few living beings are liberated also. The dynasty of dvijas is also set in through cakravartī. In the fourth period of duṣamā-suṣamā, 58 śalākā puruṣas are born. Religious devotion is terminated during the period of 7 tīrthaṅkaras counted from 9th to 16th, the 9th being not included. Eleven Rudras and nine quarrelsome Nāradas do also exist. Besides, there happens to be Upasarga (उपसर्ग) upon 7th, 23rd and the last tīrthaṅkars respectively. In the 3rd, 4th and 5th periods, various types of devils and kuliṅgīs (कुलिंगी) are also born for destroying the religious order and castes like cāṇḍāla (चांडाल), śābara (शाबर), śvapaca (श्वपच). pulinda (पुलिंद), lāhala (लाहल), and kirāta also begin to appear. In duṣamā period. 42 kalkīs and upakalkīs are born. Some troubles like over-raining, under-raining, earthquake and vajrāgni etc. also take place during the period of huṇḍāvasarpiṇī (see Trilokasāra). These days the fifth period of huṇḍāvasarpiṇī is going on in Āryakhaṇḍa of Bharatakṣetra.

The six-cyclic changes of time are not found in any region other than Āryakhaṇḍa. However, in five Mlekṣakhaṇḍas and śreṇīs of Vidyādharas on Vijayārdha parvata, starting from 4th period upto the end of avasarpiṇī period, the good qualities go on decreasing and they go on increasing from 3rd period upto the end of utsarpiṇī period. In other periods, no change takes place (see Trilokasāra). Alike Bharatakṣetra, the wheel of time goes on in Airāvata kṣetra also.

The six-cyclic change of time takes place in Āryakhaṇḍas of two Bharatas and two Airāvatas in Dhātakīkhaṇḍa and Puṣkarārdha dvīpa each (see Trilokasāra, 779).

This Martyaloka (मर्त्यलोक) spreading over 45 lakh yojanas, has 5 Bharata kṣetras and 5 Airāvata kṣetras where the wheel of time goes on with the six-cyclic changes. In other regions, there happens to be no such change. Bhogabhūmis and karmabhūmis retain their positions as such. (See Tattvārthasūtra-Tābhyāmaprā bhūmayo-avasthitāḥ—ताभ्यामपरा भूमयोऽवस्थिताः

MANUṢYA LOKA (HUMAN UNIVERSE)
(मनुष्य लोक)

At Citrā earth located at the middle of Trasanālī, there exists manuṣyaloka having a diameter of 4500000 yojanas. Height of manuṣyaloka is 100000 yojanas and its circumference is 14230249 yojanas and area 16009030125000 square yojanas. (See Tiloya Paṇṇattī, Mahādhikāra 4).

Dvīpas and Oceans in Manuṣya Loka

Jambūdvīpa having a diameter of 100000 yojanas eqists amidst Manuṣyaloka. Around the circular land mass of Jambūdvīpa there exists a ring of Lavaṇa samudra having a breadth of 200000 yojanas. Then there follow the alternate rings of Dhātakīkhaṇḍa, Kālodasamudra, Puṣkaravara dvīpa, having their respective breadths of 4, 1, 16 lakh yojanas. Right at the middle of puṣkaravara dvīpa there exists the ring of Mānuṣottara parvata which marks the outer demarcation of manuṣyaloka having a diameter of 45 (=1+2+2+4+4+8+8+8+8) yojanas. Manuṣya loka comprises of Jambūdvīpa, Dhātakīkhaṇḍa, and half of Puṣkaravara dvīpa, thus making two and a half dvīpas (Aḍhāī dvīpas) (अढाई द्वीप) and two oceans viz. Lavaṇasamudra and Kālodasamudra.

Jambūdvīpa (जम्बूद्वीप)

See the detailed description of Jambūdvīpa in the chapter on Jambūdvīpa. Detailed description of six regions of Bharatakṣetra is also found in the chapter on Bharatakṣetra.

Videha Kṣetra (विदेहक्षेत्र)

A detailed description of Videha kṣetra is found in the chapter on Videha Kṣetra. Tīrthaṅkaras, Cakravartīs, Nārāyaṇas, Pratinārāyaṇas and Balabhadras happen to be there. Kevalīs and asicetics are always found roaming.

Establishment of Other Kṣetras

In Jaghanya bhogabhūmi of Haimavata and Hairaṇyavata kṣetras, there live human beings who are born in pairs and also die together. They have an utkṛṣṭa age of one palya, bodily height of one kosa. They use the material obtained from ten types of kalpa trees. In madhyama bhogabhūmi of Hari and Ramyaka kṣetras there live human beings having an utkṛṣṭa age of two palyas and bodily height of two kośas. In uttama bhogabhūmi of Devakuru (देवकुरु) and Uttarakuru (उत्तरकुरु) kṣetras in Videha, there live human beings having an utkṛṣṭa age of three palyas and bodily height of three kośas. All of these bhogabhūmis are universal in nature.

In Jambūdvīpa, there are 32 karmabhūmis and 6 bhogabhūmis which exist universally and there is not a six-cyclic change of time there. In Bharata and Airāvata kṣetras of Āryakhaṇḍa, there exist Uttama bhogabhūmi, Madhyama bhogoabhūmi and Jaghanya bhogabhūmi during the first, second and third periods of avasarpiṇī. In 4th period, there exists karmabhūmi alike that of Videha, and Tīrthaṅkaras, Cakravartīs and great men are born then. In 5th period, due to absence of Tīrthaṅkaras and Kevalīs, there is a decay of religioṅ. In 6th period, due to absence of religious kings and ascetics, the human beings live like animals and become devoid of clothes. The six-cyclic change in wheel of time does not take place any-where other than Bharata and Airāvata kṣetras.

Mleccha Khaṇḍas

There are 5 mleccha khaṇḍas in each of the 32 Videhas and Bharata and Airāvata kṣetras each. Thus there are 170 (=5×32+5×2) mleccha khaṇḍas in Jambūdvīpa. In mleccha Khaṇḍas and 110 towns of Vidyādharas at both the śreṇīs of 32 Videhas there exists a situation alike to that at the beginning of fourth period of avasarpiṇī and in mleccha khaṇḍas and 50 and 60 towns of Vidyādharas at southern and northern śreṇīs of Vijayārdhas of Bharata and Āirāvata kṣetras alike to what appears from the beginning to the end of fourth period of avasarpiṇī.

Parvatas

There are 34 Vṛṣabha parvatas in all the 34 Āryakhaṇḍas. There are 4 Nābhigiris, one in each of the Haimavata, Harī, Ramyaka and Hairaṇyavata kśetras. There exist 78 (=16 at Meru + 4 at Gajadantas + 2 at Jambū and Śālmali trees + 16 at Vakṣāra parvatas + 34 at Vijayārdhas + 6 at Kulāchalas) real Jina temples.

Dhātakīkhaṇḍa

The dimensions of parvatas, kṣetras and rivers etc. in Dhatakīkhaṇḍa is double those of their respective counterparts in Jambūdvīpa. The only difference is that there exists one extra Jina temple at two Iśvākāra parvatas each in Dhātakīkhaṇḍa. The kṣetras look ring type. The counterpart of Jambū tree, there exists Dhātakī tree there. More details may be found in the chapter on Dhātakīkhaṇḍa.

Puṣkarārdha Dvīpa

There are two ring type Iśvākāra parvatas 8 lakh yojanas long each in the south-northern direction. Rest of the description is alike to that of Dhātakīkhaṇḍa. There exist 4 Merus and a Puṣkara tree.

Besides, it is worth noticing that the diameter of Bharatakṣetra Jamūdvīpa is $526\frac{6}{19}$ yojanas, and outer diameter of Bharatakṣetra in Dhātakīkhaṇḍa is $18547\frac{155}{212}$ yojanas and in Puṣkarārdha $65446\frac{13}{282}$ yojanas. The increase in dimensions other regions etc. may similarly be understood.

Kubhoga Bhūmis

Tne description of 24 kumānuṣa (evil human) dvīpas at the inner coast of Lavaṇasamudra may be found in the chapter on 'Lavaṇa samudra'. Similarly there exist 24 kumānuṣa dvīpas at the outer coast of Lavaṇasamudra. Thus there are 48 kumānuṣa dvīpas in Lavaṇasamudra. All the dvīpas are situated at a height of one yojana above the sea water. Similarly there are 48 kumānuṣa dvipas in Kālodasamudra. Different types of kumānuṣas having a peculiar animal limb, just a horn, tail or face etc., are bon at different dvīpas. More details may be found in the chapter on 'Lavaṇasamudra'. Here it is worth mentioning that kumānuṣa described as having a face alike to that of a cow or pig etc. has rest of the body alike to that of a human being. They are born as kumānuṣas due to their accumulated bad deeds (कुदान) in their previous lives (see Trilokasāra, vv. 913 to 921). In kumānuṣa dvīpas there exist kubhogabhūmis.

Thus considering Bhogabhūmi, Kubhogabūmi, Āryakhaṇḍa, Mlecchakhaṇḍa and Vidyādhara śreṇīs as distinct places, there become 5 classes of living places of human beings. Any description in Jambūdvīpa is double in Dhātakīkhaṇḍa and in Puṣkarārdha remaining the same as in Dhātakīkhaṇḍa. For example, if there are 6 Bhogabhūmis is Jambūdvīpa, there are 12 Bhogabhūmis in Dhātakīkhaṇḍa and Puṣkarārdha each.

The statistical data as related to two and a half dvīpas is given as under:

Śaśvata bhogabhūmi	= 6×5=30	(Haimuvat, Hari, Devakuru, Uttara Kuru, Ramyaka, Hairaṇyavata)
Śāśvata karmabhūmi	= 32×5=160	(Videhas)
Aśāśvata bhogabhūmi	= 10	(5th Bharata and Airāvat each in three periods each of sixfold variation of time in avasarpiṇī and utsarpiṇī each)
Aśāśvata karmabhūmi	= 10	(As above)
Āryakhaṇḍa	= 170	(Videhas 160 + Bharatas 5 + Airāvatas 5)
Mlecchakhnṇḍa	= 850	(Human beings here are mlecchas by position and not by caste or education)
Vidyādhara śreṇī	= 240	(Human beings here are celestial, expert in education)
Kubhogabhūmi	= 96	(Lavaṇasamudra 48 + kāloda samudra 48)

Parvatas (अढ़ाईद्वीप के मुख्य पर्वत)

1. Sumeru	5
2. Jambū, Śālmali trees etc.	10
3. Gajadanta	20
4. Kulācala (Himavan etc.)	30
5. Vakṣāra	80
6. Vijayārdha	170

7.	Vṛṣabhācala	170
8.	Iṣvākāra	4
9.	Nābhigiri	20

Natural Caityālaya (मध्यलोक के अकृत्रिम 458 जिनचैंत्यालय)

1.	At Sumeru	80
2.	At Jambū tree etc.	10
3.	At Gajadanta	20
4.	At Kulācala	30
5.	At Vakṣāra	80
6.	At Vijayārdha	170
7.	At Iśvākāra	4
8.	At Mānuṣottara parvata	4

Thus the total number of Caityālayas is 398. If we add to them 52 Caityālayas of Nandīśwara, 4 of Kuṇḍalagiri and 4 of Rucakagiri, we see that the total number of Jina caityālayas becomes 458. I bow down to all the holy Jina Caityālayas.

ĀRYAKHAṆḌA AND CYCLES OF AVASARPIṆĪ AND UTSARPIṆĪ

The wheel of time moves along the two fundamental time divisions—Avasarpiṇī and Utsarpiṇī.

Avasarpiṇī is divided into six periods, viz.

Suṣamā-suṣamā = 4 koḍākoḍī sāgaras
Suṣamā = 3 koḍākoḍī sāgaras
Suṣamā-duṣamā = 2 koḍākoḍī sāgaras
duṣamā-suṣamā = 1 koḍākoḍī sāgara—42000 years
duṣamā = 21000 years
duṣamā-duṣamā = 21000 years.

The six periods occur in the reverse order in Utsarpiṇī. During Avasarpiṇī, the age of human beings is 3 palyas in the beginning of first period and it reduces to 2 palyas at the end of first period and beginning of second period, 1 palya at the end of second period and beginning of third period, pūrvakoṭi at the end of third period or beginning of fourth period, 120 years at the end of fourth-period and beginning of fifth period, 20 years at the end of fifth period and beginning of sixth period and 15 years at the end of sixth period. The order is reversed during Utsarpiṇī.

Human beings take food after 3 days in first period, after 2 days in second period, after one day in third period, daily in fourth period, many times in fifth period and repeatedly in sixth period. During the first three periods, human beings of bhogabhūmi obtain their food-material from ten kinds of kalpa trees.

During Avasarpiṇī, upto the time of third period with balance of 1/8 palya, there were born 15 kulakaras counted from Pratiśruti upto Ṛṣabhadeva (see Trilokasāra, vv. 792–794). Some consider only 14 kulakaras not including Ṛṣabhadeva as one of them. And during the third period with a balance of 3 years 8½ months Ṛṣabhadeva obtained salvation. During the fourth period with a balance of 3 years 8½ months lord Mahāvīra obtained salvation. During the fifth period in current the last Jaina monk Vīrāṅgada muni along with his caturvidha saṁgha will adopt sallekhanā at the instance of kalkī king asking for Grāsa as tax. And the religion, the king and fire will come to an end then, on the same day.

The Time of Annihilation

At the end of sixth period i.e. duṣamā-duṣamā, the violent wind called Saṁvartaka destroys parvatas, trees and the earths. All the living beings become unconscious at that time. The living being residing in the vicinity of Vijayārdha parvata, Gaṇgā and Sindhu rivers and Kṣudra cave enter into them respectively. Some kind devas and Vidyādhara human beings bring pairs there. (See Trilokasāra, gāthas 864–865). At the end of the sixth period, the showers of seven objects, viz. wind, extreme cold, kṣārarasa, poison, strong fire, dust and smoke, operate in order for 7 days each. Rest of human beings saved before are also finished by this time. The earth burnt out by the showers of poison and strong fire is broken into pieces right upto one yojana deep into it.

Then Utsarpiṇī begins to operate. The showers of water, milk, ghee, nectar and juice begin to operate in order for 7 days each. The earth becomes cold and the living beings come out of the caves of Vijayārdha etc. Then follow the other periods during Utsarpiṇi. In this manner the sixfold varations of the wheel of time operate only in Āryakhaṇḍas of Bharata and Airāvata kṣetras. Conditions of suṣama-suṣama period, susma period and suṣama-duṣama period, prevail at Devakuru and Uttarakuru, Hari and Ramyaka and Haimavata and Hairaṇyavata kṣetras. Conditions of the fourth period i.e. suṣamā-duṣamā, always prevail over Videha kṣetra. (see Trilokasāra, v. 882). In five Mleccha khaṇḍas of Bharata and Airāvata kṣetras each, and śreṇīs of Vidyādharas at Vijayārdha, the variation takes place just as from the beginning to the end of the fourth period (see Trilokasāra, v. 883).

Thus it is evident that the dimensions of kṣetras and qualities like age, height etc. of human beings and tiryañca (subhuman) living beings in the kṣetras decrease during Avasarpiṇī and the same increase during Utsarpiṇī. Sometimes an ocean becomes dry land and a mountain a kṣetra in the region of Āryakhaṇḍa. Annihilation also takes place in Āryakhaṇḍa. No variation takes place in any other place except Āryakhaṇḍa. Any universal rivers, parvatas, oceans and Jina temples do not exist in Āryakhaṇḍa. Universal Gaṅgā river along with its family of 14000 streams passes through Mleccha khaṇḍas and not Āryakhaṇḍa (see Tiloya Paṇṇattī, first part, p. 171).

Size of Āryakhaṇḍa

Bharata kṣetra is stretched over $526\frac{6}{19}$ yojanas, $\frac{1}{190}$ the part of Jambūdvīpa. Vijayārdha parvata having a stretch of 50 yojanas passes through it in the east-western direction. Thus the southern half of Bharata kṣetra is extended over $238\frac{3}{19}$ $[=(526\frac{6}{19} - 50) \div 2]$ Length of Padma sarovara (lake) at Himavān parvata is 1000 yojanas and Gaṅgā and Sindhu rivers each flow 500 yojanas over this parvata before they turn towards the southern direction. Thus the east-western length of Āryakhaṇḍa is 2000 $(=1000+500+500)$ yojanas. Thus the area of Āryakhaṇḍa becomes equal to 476000 (238×2000) square yojanas.

At the centre of Āryakhaṇḍa, there exists Ayodhya, capital, 119 yojanas south of which exists the vedi of Lavaṇasamudra, at the same distance north of which lies the vedī of Vijayārdha parvata and 1000 yojanas east and west of which lie the west vedīs of Gaṅgā and Sindhu rivers respectively. Thus Āryakhaṇḍa is enclosed by Lavaṇasamudra in the south, Vijayārdha in the north, Gaṅgā river in the east and Sindhu river in the west. The whole of the present world is contained into this Āryakhaṇḍa. Consequently parvatas like Sumeru, Himavān etc., kṣetras like Haimavata, Hari etc., rivers like Gaṅgā etc. and water tanks like Padma etc. as contained in Jambūdvīpa, are all situated out of Āryakhaṇḍa.

The contents of Āryakhaṇḍa are described as under:

In the beginning of the present era, Lord Ṛṣabhadeva allowed Indra to create countries, towns and villages and lord Ṛṣabhadeva himself established the varṇas (वर्ण) (castes) viz. Kṣatriya, Vaiśya and Śūdra, as described in Ādi Purāṇa. Some of the villages, towns and countries created at that time are seen these days also, e.g. Sukośala, Avantī, Puṇḍra, Uṇḍra, Aśmaka, Ramyaka, Kuru, Kaśī, Kaliṅga, Aṅga, Baṅga, Suhma, Samudraka, Kaśmīra, Uśīnara, Ānarta, Vatsa, Pañcāla, Mālava, Daśarṇa, Kaccha, Magadha, Vidarbha, Kuru, Jāngala, Karāhaṭa, Mahārāṣṭra, Saurāṣṭra, Ābhīra, Koṅkaṇa, Vanavāsa, Āndhra, Karnāṭaka, Kauśala, Cola, Kerala, Dārū, Abhīsāra, Sauvīra, Śūrasena, Aprāntaka, Videha, Sindhu, Gāndhāra, Yavana, Cedī, Pallava, Kamboja, Āraṭṭa, Bālhika, Turuṣka, Śaka and Kekaya and many other countriesas well (see Ādi Purāṇa, p. 360).

As a courtesy to pay obesiance to Lord, there came Indra along with other devas and he managed to create the sources of livelihood for the living beings. At an auspicious moment, he first created a Jina temple at the middle of Ayodhya town and then one Jina temple in four directions each. After this, he created countries like Kauśala etc., towns like Ayodhya etc. and villages etc. along with their forests and proper demarcations respectively.

Variations of Dimensions of Parts of Āryakhaṇḍa

It is generally accepted that good qualities of living beings decrease during Avasarpiṇī and increase during Utsarpiṇī. The question arises as to decide whether or not there occurs any change in the dimensions of parvatas, rivers etc. of Āryakhaṇḍa during the cycles of Avasarpiṇī and Usarpiṇī. It is stated in Tattvārthasūtra of Umāsvāmī as:

"Bharatairāvatayorvṛddhihrāsau ṣaṭsamayābhyāmutsarpiṇyavasarpiṇī bhyām." Tattvārtasūtra, 28.

भरतैरावतयोर्वृद्धिह्रासौ षट्समयाभ्यामुत्सर्पिण्यवसर्पिणीभ्याम् । त०सू०, 3/28.

i.e. During six-fold cycles of Utsarpiṇī and Avasarpiṇī, the phenomenon of increase and decrease does happen to be in Bharata and Airāvata kṣetras. Ācārya Vidyānanda in his commentary on Tāttvārtha Sūtra says that the process of increase and decrease in Bharata and Airāvata kṣetras implies symbolically indeed a sense of change in good qualities of the living beings in these kṣetras (see Tattvārthaślokavārtika, 5th part, p. 346).

"Tātsthyattācchabdyasiddherbharatairāvatayorvṛddihrāsayogaḥ adhikaraṇanirdeśo vā, tatrasthānām hi manuṣyādīnāmanubhavāyuḥpramāṇādikṛtau vṛddhihrāsau ṣaṭkālābhyām utsarpinyavasardiṇībhyām."

But Umāsvāmī further states as:

"Tābhyāmaparā bhumayoavasthitāḥ." Tattvārtha Sūtra, 29. i.e., the bhūmis of kṣetras other than the two (Bharata and Airāvata) remain unchanged.

Evidently it indicates that the bhūmis of Bharata and Airāvata do exhibit some change in dimensions due to the effect of six-time cycles of Avasarpiṇī and Utsarpiṇī. Vidyānanda, while commenting on the verse "Merupradakṣiṇā nityagatayo nṛloke (13)" also writes that formation of troughs and crests on (the surface of) bhūmis of Bharata and Airāvata kṣetras has been observed with the passage of time. The minimum stretch of Airāvata Bharata and kṣetra remains $526\frac{6}{19}$ yojanas but it can increase to any length at a higher plane in space due to oblique and slanting creations in the kṣetras, logically a big statured body can be accommodated over a body with less space for disposal. A person located at the base of a deep well will think that the day light remains for two hours only when the sun transits his meridian. But the reality is quite different for those who live at the surface of the earth containing the well. It may be stressed upon here that apart from the literal or apparent meanings, the real sense implied in the text should be logically made out. The sense implied in the verse 'Tābhyāmaparā bhūmayo avasthitā' clearly indicates that the bhūmis of Bharata and Airāvata kṣetras are not non-changeable. But rather the formation of crests and troughs often takes place there (see Tattvārtha Ślokavārtika 5th part, pp. 572–573).

The present concept of change of bhūmis can help us explain the development of geographical reasons for the difference of lengths of day and night in India and America respectively. The gradual formation of the earth into the oval shape of a Nāraṅgī (orange) can also be thought of in the light of Jaina theory of variations in Bharata and Airāvata kṣetras in the six types of time change of cycles of Avasarpiṇī and Utsarpiṇī.

LAVAṆA SAMUDRA

Encircling Jambūdvīpa, there exists a maṇḍalākāra (like the shape of two boats being placed face to face upon each other) Lavaṇasamudra (salt ocean) having a surface stretch of 10000 yojanas which increases to 200000 yojanas at plane portion of Citrā earth. The surface stretch at depth of 1000 yojanas by traversing 95000 yojanas from the coast on both sides each is 10000 yojanas. Thus radius of Lavaṇasamudra decreases by 95000 yojanas at a depth of 1000 yojanas i.e. 95 yojanas a yojana in depth, or 95 aṅgulas an aṅgula in depth etc. Above the plane portion, there arises a water tide 11000 yojanas high on the day of amāvasyā (new-moon-day) and regularly getting higher to the extent of 16000 yojanas high on the day of pūrṇimā (full-moon-day). Thus the water tide increases in height at the rate of $333\frac{1}{3}\left(=\frac{16000-11000}{15}\right)$ yojánas per day during the bright half of the lunar month.

Pātālas (पाताल) *Amidst the Samudra*

In all the four directions of central part of Lavaṇasamudra, there exist 1008 pātālas viz. 4 utkṛṣṭa pātālas (one in 4 directions each), 4 madhyama pātālas (one in 4 directions each), 1000 jaghanoa pātālas in 8 directions of middle of utkṛṣṭa and madhyama pātālas.

Four Utkṛṣṭa Pātālas (पाताल) (Four maximal underworlds)

There are four pātālas viz. Pātālas Kadambaka, Vaḍavāmukha and Yūpakesara situated in the eastern, southern etc. directions respectively. A pātāla has 10000 yojanas as diameter at the base and the face as well, 100000 yojanas as depth (height) and diameter at its middle place. The thickness of Vajramaya bhittikā of the pātālas is 500 yojanas. The pātālas are similar to the arañjana-chaṭa generated by lord Jinendra. The upper-third portion of pātālas is always filled with water, lower-third with dense air and the middle-third with water and air both. The air in all the pātālas regularly increases during bright half of lunar month and decreases in the dark half. The daily variation is $2222\frac{2}{9}$ yojanas. Thus on pūrṇimā (15th bright), the upper-third remains filled with water and the other middle-third and lower-third with air whereas on amāvasyā (15th dark), the lower-third is filled with air alone and the other middle-third and upper-third with water. The water vapours spread out up to a distance five times the diameter of the face of the pātāla. As stated in 'Tattavārtharājavārtika', the dance of kinnarīs living in khara (खर) part of Ratnaprabhā earth makes the water increase by 500 yojanas and on both sides of Ratnavedikā to increase by 2 gavyūties.

The size of the pātālas is like that of a mṛdaṅga (trumpet). Their depth below samabhūmi is their height. They reach 100000 yojanas down upto kharabhāga, paṅkabhāga in Ratnaprabhā earth having a thickness of 180000 yojanas.

Four Madhyama Pātālas

There exist four madhyama pātālas, one in four directions each. A madhyama pātāla has 1000 yojanas as diameter at its base and face both, 10000 yojanas as height (depth) and diameter at its middle portion. The upper-third and lower-third parts are filled with water and the middle-third part with air; one-third part is equal to 10000/3 or $3333\text{–}\frac{1}{3}$ yojanas. The daily variation (increase or decrease) of water and air is $222\frac{2}{9}$ yojanas.

One Thousand Jaghanya Pātālas

In between utkṛṣṭa and madhyama pātālas, there exist 1000 jaghanya (minimal) pātālas in all the eight directions. The dimensions of a jaghanya pātāla is one-tenth of the dimensions of a madhyama pātāla i.e. 100 yojanas as diameter at base and face both, 1000 yojanas as height (depth) and diameter at the middle place. The upper-third part is filled with water, lower-third with air and middle-third with water and air. One-third part measures $333\frac{1}{3}$ $(\frac{1000}{3})$ yojanas. The daily variation (increase or decrease) of water and air is $22\frac{2}{9}$ yojanas.

142000 Towns of Nāgakumāra Devas

There exist 72000 towns situated at the outer part, 42000 towns at the inner part and 28000 towns at the top part of Lavaṇa-samudra. The nāgakumāra devas protect the samudra in their respective regions. These towns are situated in celestial space at a distance at 700 yojanas from coast and a height of $700\frac{1}{2}$ yojanas from top of samudra. A town has a diameter of 1000 yojanas. Every town has jewelled demarcation, velandharas, and palaces of bhujagadevas. These towns decorated ever with Jina temples, vāpikās and orchards are indeed describable.

Eight Parvatas Near the Utkṛṣṭa Pātāla

Entering 42000 yojanas into the samudra from a coast, there exist 8 parvatas. West to the pātāla, there exist two silvery parvatas viz. Kaustubha (कौस्तुभ) and Kaustubhāsa (कौस्तुभास), each being 1000 yojanas high and having the shape like that of ardhaghaṭa (अर्द्धघट) and vajramaya foundation and many precious stones fixed at the front side. The oblique stretch of a parvata is 116000 yojanas. The sum of the distances from Jagatī (42000+42000) plus stretch of the parvata becomes equal to 2 lakh yojanas.

These parvatas are silvery at their middle places where Kaustubha and Kaustubhāsa devas known after the names of parvatas respectively reside. Their dimensions and ages are like those of the Vijaya devas. Udaka and Udakābhāsa parvatas, bluish as nīlamaṇi, are situated on the northern and southern sides of Kadamba pātāla respectively and Śiva and Śivadeva reside over these parvatas respectively. Their ages are equal to those of Kaustubha devas. In the eastern and western directions of Vaḍavāmukha pātāla, there exist respectively two parvatas—Śaṅkha and Mahāśaṅkha—appearing like the colour of a śaṅkha each, having descriptions as mentioned above. In the soutthern and northern directions of Yūpakesarī pātāla, there exist respectively two parvatas—Daka and Dakavāsa—each appearing like the colour of Vaiḍūryamaṇi. Lohita and Lohitāṅka devas reside upon them respectively.

Eight Solar Islands

At a distance of 42000 yojanas from jagatī of Jambūdvīpa, there exist 8 Sūryadvīpas situated at northern and southern sides of parvatas called Kaustubha etc. as mentioned above. Jewels are twinkling there. In Trilokasāra, there is a mention of 16 Candradvīpas (lunar islands) also. At a distance of 42000 yojanas from the inner side and outer side coasts, there exist 2 Sūryadvīpas in all the 4 directions each, and 16 Candradvīpas exist on the sides of all the eight directions, 2 Candradvīpas at every side. All these dvīpas (islands) are circular land masses having a diameter of 42000 yojanas each.

Gautama Dvīpa

At an inward distance of 12000 yojanas from the sea-coast there exists in the north-west direction an island 'Gautamadvīpa' having 12000 yojanas as its height and diameter each.

All these dvīpas have vana, upavana, vedikās and Jina temples. Nāgkumaras of Belandhara caste known after the names of the respective dvīpas reside there.

Māgadha Dvīpa et al

Near the Bharata kṣetra, at a distance of saṇkhyāta (numerate) yojanas from the southern coast of the ocean, there exist three dvīpas—Māgadha, Varatanu and Prabhāsa. That is, at a distance of several yojanas from toraṇa (pylon) dvāra of Gaṅgā river, southern Vaijayanta dvāra of Jambūdvīpa and Toraṇa dvāra of Sindhu river, there exist Māgadha, Varatanu and Prabhāsa dvīpas respectively. The devas known after the names of these dvīpas respectively reside there.

Similarly in the northern part of Airāvata kṣetra, Magadha, Varatanu and Prabhāsa dvīpas are situated in the sea-side of Raktodā river, next to the Aparājita dvāra and at some distance from Raktā river respectively. They are won over by the Cakravartīs in Airāvata kṣetra.

48 Kumānuṣa Dvīpas

In Lavaṇasamudra, there exist 48 dvīpas of kumānuṣas—24 dvīpas in the inner and the outer parts each. At a distance of 5000 yojanas from the Jagatī of Jambūdvīpa, there exists a dvīpa in 4 cardinal directions each, and 5000 yojanas ahead a dvīpa in 4 (north, etc.) extra directions (vidiśās) (vāyavya, īśāna etc.) each. At a distance of 550 yojanas ahead there exists a dvīpa in 8 intermediate directions (antardiśās) (of diśās and vidiśās) each. There exist 4 dvīpas in the two sides of Himavān and Vijayārdha parvatas each at a distance of 600 yojanas from the jagatī, and 4 dvīpas in the two sides af Shikharī and Vijayārdha paravatas each at a distance of 600 yojanas inside the ocean. The diameter of dvīpas in the diśās is 100 yojanas each, of dvīpās in vidiśās 55 yojanas each, of dvīpas in antaradiśās 50 yojanas each, of dvīpas in the sides of parvatas 25 yojanas each. Thus there are 24 dvīpas towards the inner side of Lavaṇasamudra and there are 24 dvīpas towards the outer side of Lavaṇasamudra.

All these dvīpas have vanakhaṇḍas, water tanks, flowers, fruits, sweet juice and water. Here Kubhogabhūmi exists and living beings produced here are called kumānuṣas. They have irregular shapes. Kumānuṣas in the dvīpas situated in the diśās (east, south, etc.) are the ones having a jaṅghā (thigh), a tail, a horn and being dumb respectively. Kumānuṣas in dvīpas situated in the vidiśās (āgneya etc.) respectively are śaṣkulikarṇa, karṇa prāvaraṇa, lambakarṇa, and śasakarṇa. Kumānuṣas in the 8 dvīpas situated in the antardiśās are the ones having their face like that of leo, horse, dog, buffalo, pig, śārdūla (tiger), owl and monkey, respectively. In the dvīpas adjacent to Himavān parvata there exist kumānuṣas—matsyamukha and kālamukha; adjacent to southern Vijayārdha there exist kumānuṣas—meśamukha and gomukha; and adjacent to Śikharī parvata there exist kumānuṣas—meghamukha, vidyunmukha; and adjacent to northern Vijayārdha parvata there exist kumānuṣas—ādarśamukha, hastimuka, respectively. In all these dvīpas ekoruka kumānṣas live in caves and all eat earth. Rest of the kumānuṣas live under the trees and eat fruit and flowers Tiloyapannatti 455).

Reasons for Taking Birth in Kubhogabhūmi

Those who have wrong vision, propitiate malign devas, have undue pride, insult Digambara saints, do not respcct gurus properly, are devoid of devotion towards arihantas, do not observe silence while eating, are devoid of samyagjñana etc. are born as kumānuṣas. In Trilokasāra,* it is mentioned that rhose who arein possession of bad thoughts, impure, afflicted by sūtaka (सूतक) pātaka (पातक), copulate with pregnant menstracting (रजस्वला) woman, born hybrid form, and donating to the non-deserving persons are born as kumānuṣas in pairs. They have a height of one kośa and an age as of one palya. They are born in order of merit of castes of kumānuṣas. When they acquire samyakatva (सम्यकत्व), they are born as pure religious pairs.

Miscellaneous

There are coasts of Lavaṇasamudra. Pātālas also exist in it and

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*दुब्भावअसूचिसूदकपुप्फवई-जाइसंकरादीहिं ।
कय दाणावि कुवत्ते जीवा कुणरेसु जायंते ।। (त्रि० सा०, गा० ९२४)

not in any other samudras at all. The height of water column in Lavaṇasamudra varies. All other samudras have a depth of 1000 yojanas each and the water maintains a plane surface above. Water of Lavaṇasamudra is saline in taste. There exist water animals in Lavaṇasamudra. The region of Lavaṇasamndra where Matsya river falls into it, abounds in watery animals like tortoise, śiṁśamāra and crocodile etc. who have sizes ranging from 9 yojanas to 18 yojanas. Laṅkā of Rāvaṇa is also situated in this Lavaṇasamudra. Several other Rākṣasa dvīpas also exist in it (see Padma Purāṇa, parva 48). This dvīpa has a radius of 7 yojanas and circumference a little more than 21 yojanas and has at its centre a mount called as Trikūṭa parvata (just as Sumeru) having 9 yojanas as height and 50 yojanas as breadth. At the top of the Trikūṭa parvata, beautified with a variety of trees, there exists a town known as Laṅkā which has several jewels, precious stones, golden palaces etc. Laṅkā town has a breadth of 30 yojanas in all the directions and containing large prākāsrs and parikhās it looks like another earth.

In the nearhood of Laṅkā, there exist some other natural regions made up of jewels, precious stones and gold. They have beautiful towns where Vidyādharas enjoy themselves in the worldly way at their utmost. Some other dvīpas viz. Sandhyākāra, Subela, Kāñcana Hrādana, Yodhana, Haṁsa, Harisāgara and Ardhasvarga etc. are capable of providing with all comforts and pleasures. They are beautified with their respective orchards and look like heavenly abodes.

Description in Padmapurāṇa (*Chapter Sixth, Verses 62 to 82*)

Lavaṇasamudra has many dvīpas and Kalpa-like trees. These dvīpas have many parvatas with their tops beautified with precious stones. These dvīpas have several towns with beautiful names: Sandhyākara, Manohlāda, Subela, Kāñchana, Hariyodhana, Jaladhidhvāna, Hansadvīpa, Bharakṣama, Ardhasvargotkaṭa, Āvarta, Vighaṭa, Rodhana, Amala, Kānta, Sphuṭataṭa, Ratnādvīpa, Toyāvalī, Sara, Alaṅghana, Nabhobhānu and Kṣema etc.

In north-west direction, there exists in samudra a big island called Vānaradvīpa having a diameter of 300 yojanas. At the centre of Vānaradvīpa, there exists Kiṣku parvata made up of jewelled golden slabs. Kiṣku parvata is alike to Trikūṭa parvata. Thus it appears that there exist many dvīpas in Lavaṇasamudra.

Lavaṅasamudra has a jagatī having a height of 8 yojanas and breadth 12 yojanas at base, 8 yojanas at its middle and 4 yojanas at its top. The description of vedikās, vanakhaṇḍa and devanagara atop the jagatī is parallel to the same as at the top of jagatī of Jambūdvīpa. Śilāpaṭṭa and vana exist on the inner and outer sides of the jagatī respectively. The outer circumference of the jagatī measures 1581139 yojanas.

NANDĪŚVARA DVĪPA

The eighth island from Jambūdvīpa is known as Nandīśvara dvīpa which has a diameter of 163 crore and 84 lacs (1638400000) yojanas. It has in eastern direction a mountain called Añjanagiri which has a base-diameter 84000 yojanas and an equal height. It is made up of Indranīla jewel. In four directions of this mountain there are four quadrangular drahas (द्रह) (outway paths, also known as Bāvaḍīs (बावड़ी)), each one with a diameter of one lakh yojanas and a depth of 1000 yojanas. They are filled with pure water, devoid of watery animals, but lotus flowers with a diameter of 1000 utsedha yojanas each are blossoming therein around the Añjanagiri. In the eastern direction, there exist four vāpikās (tanks) called Nandā, Nandāvatī, Nandottara and Nandighoṣā respectively and are surrounded by four udyānas (उद्यान) (forests) each one lakh yojanas long and fifty thousand yojanas broad respectively. Counting from the eastern direction, these forests are called Aśoka, Saptacchada, Campaka and Āmra (आम्र) respectively. Every forest has Caitya tree after its name. At the central position of every vāpikā (वापिका), there are situated-curd coloured mountains of 10000 yojanas height and an equal diameter. At the outer corners of the vāpikās, there are situated golden mountains named Ratikara, and of 1000 yojanas height and an equal diameter. Thus in the eastern direction, there are situated 13 mountains, viz. one Añjanagiri, four curd-coloured mountains and eight Ratikara mountains and so does the number of the mountains exist in every other direction viz. south, west and north. Thus there are 52 mountains in total. At the peak of every mountain, there exists a jewelled Jina temple. Thus there are 52 Jina temples in all.

Similarly the names of the vāpikās surrounding the Añjanagiri in the southern direction are Arajā, Virajā, Aśoka and Vītaśokā; of those in the western direction are Vijayā, Vaijayantī, Jayantī and Aparājitā, and of those in the northern direction are Ramyā, Ramaṇīyā, Suprabhā and Sarvatobhadrā respectively. Thus there are 16 vāpikās in all.

Sixty-Four Forests

Every vāpikā contains 4 forests; thus the forests total to 64 in all. Every forest has a golden and jewelled palace of 62 yojanas height, and breadth and length 31 yojanas each. Every palace has two vedikās and a gopura door. Named after the forest, there exist vyantara devas along with their families.

Fifty-Two Jina Temples

Every Jina temple has dimensions in utsedha yojanas (small yojana equalling to 4 kośas) as: length 100, breadth 50 and height 75. All the Jina temples have 108 garbha houses (sanctuary); each garbha house is equipped with Jina statues in Padmāsana and of height 500 dhanuṣas. These temples are beautified with multiple maṅgalaghaṭas, dhūpaghaṭas, golden rosaries, jewelled rosaries, aśṭamaṅgala fluids etc. The angels propitiate the Jina statues with water, perfume, flowers, rice, superior naivedya, fruit, lamp and dhūpa (incense), etc. The goddesses of Jyotiṣī, Vānavyantara, Bhavanavāsī and Kalpavāsī gods sing and dance with devotion at these Jina temples whereas many gods play at musical instruments like Bherī, Mardala and Ghaṇṭā etc.

Āśṭānhika Parva Pūjā (Worship)

In Nandīśvara dvīpa, every year in the months of Āsāḍha, Kārtika and Phālguna, starting from eighth lunar day of the bright half upto pūrṇimā (full-moon day) all the four types of gods perform continuous propitiation with devotion. At that time beautified Saudharma Indra with a coconut in hand arrives while riding over the Airāvata elephant. Beautified with jewels, Īśāna Indra with Supāḍī fruits in hand also arrives there while riding over a superior elephant. Beautified with bangles and with bunches of Āmra fruit, Sanatkumāra Indira also arrives there while riding over a superior lion. Honourable Mahendra with bananas in hand arrives there while riding over a superior horse. With a delicate body and with Ketakī flower in hand, devoted Brahmendra arrives there while riding over a white swan. Beautified with superior caṇvara and various chatras and with a blossomed lotus flower in hand, Brahmottara Indra arrives while riding over krauñca bird. Beautified with bangles and keyūra ornaments and with Sevantī flower in hand, Śukendra arrives while riding over

Cakravāka bird. Beautified with divine grace and with flower rosary in hand, Mahāśukendra arrives while riding over a parrot. Beautified with superior jewels and with blue lotus in hand, Śatāra Indra inspired with devotion arrives there while riding over a cuckoo. With pomegranate in hand, devoted Sahasrāra Indra arrives while riding over Garuḍa. With bunch of panasa fruits, Ānatendra arrives with fine divine glory while riding over Garuḍa bird. With bunches of tumbaru fruits in hand, beautified with ornaments, devoted Prāṇatendra arrives while riding over Padma vimāna (plane). With a ripe sugarcane in hand, beautified Ārṇendra arrives while riding over Kumuda plane. Beautified with Kaṭaka, Aṅgada, Mukuṭa and garlands, and with moon-lit canvara in hand, Acyutendra arrives while riding over a peacock.

The various types of birds like peacock, cuckoo and parrot used as planes are the transformations of the appropriated gods as these types of birds in the normal sense do not exist there. With fruit and flower rosaries in hands, and riding over several types of planes, Jyotiṣī, Vyantara and Bhavanavāsi gods also arrive there (see Tiloya Paṇṇatī, Ch. 5, pp. 540–542). In this manner, the gods from all the four directions propitiating and filling the space in all directions with devotional echos, go round these Jina temples.

Order of Propitiation of Caturnikāya Devas

The gods with all their might propitiate the Jina statues in the clockwise direction as depicted in the following table:

TABLE OF DIRECTIONS OF PROPITIATION

Devas Duration	Kalpavāsi	Bhavanavāsi	Vyantara	Jyotiṣī
6 hours before noon	East	South	West	North
6 hours after noon	South	West	North	East
6 hours before midnight	West	North	East	South
6 hours after midnight	North	East	South	West

The sun and the moon are immovable there and there is no division of day and night.

Method of Propitiation

All the devendras together propitiate the real Jina statues. They offer water, candana (sandal wood), akṣata (rice), flowers, naivedya, lamps, dhūpa (incense) and fruit. They decorate the temples with Candovās (made of garlands, Canvara and Kiṅkaṇis), Chatras, Canvaras, and Ghaṇṭas. They play on musical instruments like mardala, bherī, mṛdaṅga, paṭaha etc. Decorated with divine clothes and ornaments virgin goddesses present different dances and in the end stage the biography of Lord Jinendra. All the gods also stage plays on the biography of Lord Jinendra.

Thus ends the method of propitiation at Nandīśvara dvīpa which is situated next to the mānuṣottara mountain. Human beings cannot reach there. Only gods propitiate there. Even Vidyādhara human beings and Chārana Ṛddhidhārī Munīśavaras can also not go there. The accomplishable do accumulate the beneficence through the act of mental propitiation.

Kuṇḍalavara Dvīpa-Rucakavara Dvīpa

Kuṇḍalavara dvīpa, the eleventh in number, has at its centre a ring type mountain called Kuṇḍalavara parvata having a Jina temple in four directions each. Thus there are four Jina temples. Similarly, Rucakavara dvīpa, the thirteenth in number, has at its centre a ring type mountain called Rucakavara parvata having a Jina temple in four directions each. Thus there are four Jina temples. In this manner, beyond Mānuṣottara parvata, there are Jina temples 52 in Nandīśvara, 4 in Kuṇḍalavara and 4 in Rucakavara dvīpas. Thus there are 60 Jina temples here. And there are 398 Jina temples situated upto Mānuṣottara parvata in Manuṣyaloka. Thus in all there are 458 (=398 + 60) Jina temples which are real and endless in time. Beyond the thirteenth island there exist countless islands and oceans where there exists no Jina temple which is real and endless in time. However at every place gods and jyotiṣīs do have their artificial Jina temples uncountable in number in their respective houses. I bow down to all such Jina temples.

LENGTH OF A YOJANA

Paramāṇu is the smallest indivisible particle having no length and breadth and undetectable by sense-organs.

A. *Table of Length-Units*

Anantānanta paramāṇus = 1 Uvasannāsanna
8 Uvasannāsannas = 1 Sannāsanna
8 Sannāsannas = 1 Truṭireṇu
8 Truṭireṇus = 1 Trasareṇu
8 Trasareṇus = 1 Rathareṇu
8 Rathareṇus = 1 Bālāgra of Uttama bhogabhūmi
8 Bālāgras of U. bhogabhūmi = 1 Bālāgra of Madhyama bhogabhūmi
8 Bālāgras of M. bhogabhūmi = 1 Bālāgra of Jaghanya bhogabhūmi
8 Bālāgras of J. bhogabhūmi = 1 Bālāgra of Karmabhūmi
8 Bālāgras of Karmabhumi = 1 Līkha
8 Līkhas = 1 Jūn (Louse)
8 Jūns = 1 Yava (Barley)
8 Yavas = 1 Aṅgula

Note: Such an aṅgula is known as Utsedhāṅgula.

6 Utsedhāṅgulas = 1 Pāda
2 Pādas = 1 Bālista
2 Bālistas = 1 Hasta
2 Hastas = 1 Rikku
2 Rikkus = 1 Dhanuṣa
2000 Dhanuṣas = 1 Kośa
4 Kośas = 1 Laghu Yojana
500 Laghu yojanas = 1 Mahāyojana

Thus one mahā yojana has 2000 kośas. There are three types of aṅgulas which are described as under:

1. *Utsedhāṅgula*: It denotes the length of an aṅgula as determined in terms of bālāgras, līkhas etc. as depicted in the aforesaid table.

It is used in the measurement of the height of bodies of devas (gods), human beings, tiryañchas (sub-human beings) and residents of narakas (hells), dimensions of the living places of the four types of devas and dimensions of towns etc.

2. *Pramāṇāṅgula*: 500 Utsedhāṅgulas make one pramāṇāṇgula. It equals the finger-width of first Bharata Cakravartī during the period of Avasarpiṇī.

It is used to measure the dimensions of islands, oceans, mountains, vedi, rivers, kunda or water tank jagatī and regions of Bharata etc. (See Tiloyapaṇṇatti, III). The yojana determined in terms of pramāṇāṅgulas is mahāyojana or big yojana equal to 2000 kośas.

3. *Ātmāṅgula*: The finger-width of a human beings at any time in the regions of Bharata and Airāvata is known as ātmāṅgula at that time.

It is used to measure the dimensions of pitcher, kalaśa, mirror, veṇu, bherī, yuga, bed, cart, plough, mūsala, śakti, tomara, throne, arrow, nāli, akṣa, camara, dundubhi, pīṭha (back), chatra, living places of human beings, towns, orchards etc. (See Tiloyapaṇṇattī, p. 13).

Now we may easily see that

1 Mahāyojana = 2000 kośas
= 16000000 (therefore 1 kośa = 2000 dhanuṣas
1 dhanuṣa = 4 hastas)

Supposing presently one yard equal to 2 hastas, we see

1 mile = 1760 yards
= 3520 hastas

Therefore,

$$1 \text{ Mahāyojana} = \frac{16000000}{3520} \text{ miles} = 4545\tfrac{5}{11} \text{ miles}$$

$$= 4545.45 \text{ miles}$$

(See also L. C. Jaina's Introduction to Jambūdīvpa Paṇṇattī).

Presently many people are confused over the lengths of a kośa and a yojana respectively. But pondering over the interrelationship of different length-units, it may be easily seen that a bālāgra (front portion of a hair) of karmabhūmi is eight times the bālāgra of jaghanya bhogabhumi. With the passage of time now in the fifth period of wheel of time, the bālāgra of today must have become thicker than before. This would surely affect the lengths of subsequent units viz. aṅgula, pāda, hasta and yojana etc. A deeper insight into this problem will surely rectify several doubts of the researchers. The length of a bālāgra of karmabhūmi varies, as determined by modern microscopes, from 1/400 inch to 1/200 inch. Consequently the length of a yojana would also be fluctuated accordingly. However taking the bālāgra as equal to 1/500 inch and 1/300 inch, the yojana becomes equal to 49648.48 miles and 74472.72 miles respectively. The number of miles in yojana still increases if a bālāgra is considered equal to 1/200 inch. In this light it is advisable to consider the authenticity of the relationship between a yojana and miles, 4545.45 miles making a yojana. This relationship will be frequently used in the subsequent pages.

It is worth noticing here that the dimensions of towns like Ayodhya, Hastinapur etc. were measured in terms of ātmāṅgulas, the length of which depending upon the finger-width of the then cakravrtī. The finger width of a cakravartī varied from that of another cakravartī. Thus the magnitudes of dimensions of a town appear to have varied at different times due to the aforesaid variation in the length unit of an ātmāṅgula. Therefore at the time of lord Mahāvīra, his ātmāṅgula should be employed to measure the dimensions of Kuṇḍapura, the birthplace of lord Mahāvīra.

Whereas the dimensions of real islands, oceans, regions, rivers, water tanks etc. have always been measured in terms of pramāṇāṅgulas, so their magnitudes remain unchanged with the passage of time. So it is obligatory upon everyone of us to penetrate into the depth of relationships between different length-units at different times and different places. Only then we can rightly estimate the physical concept of the length of a mahāyojana.

सौंद/ Srimui